



VISTA-120
Partitioned Security System
with Scheduling

Installation and Setup Guide

THANK YOU!

For Choosing ADEMCO's

Vista-120

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Conventions Used in This Manual

Before you begin using this manual, it is important that you understand the meaning of the following symbols (icons).



These notes include information that you should be aware of before continuing with the installation, and that, if not observed, could result in operational difficulties.



This symbol indicates a critical note that could seriously affect the operation of the system, or could cause damage to the system. Please read each warning carefully. This symbol also denotes warnings about physical harm to the user.

ZONE PROG?

1 = YES 0 = NO 0

Many system options are programmed in an interactive mode by responding to alpha keypad display prompts. These prompts are shown in a single-line box.

***00**

Additional system options are programmed via data fields, which are indicated by a (*) followed by the data field number.

PRODUCT MODEL NUMBERS:

Unless noted otherwise, references to specific model numbers represent ADEMCO products.

General Description

General Description

The VISTA-120 is an 8-Partition alarm control panel that supports up to 128 zones using basic wired, polling loop, and wireless zones. In addition, the control offers relay control and scheduling capabilities for automating system functions. The major system features are outlined below.

New Features

This version of the VISTA-120 has enhanced features not found in the prior version. These enhancements include the following:

- Support for unique features of 5800EU supervised wireless system, including RF jamming detection and processing, activation of RF wireless siren, and more frequent supervision.
- Expansion of the number of programmable outputs from 32 relays (on 4204s) to 96 via polling loop support of up to 64 4101SN programmable relays and/or open collector outputs on 4208-4 zone expander modules (4 per module).
- Integration of VISTA-120 with PassPoint Access Control System so that VISTA-120 status/users can control PassPoint ACS and unused PassPoint zones can become part of VISTA-120's complement of protection zones.
- Self actuating siren/bell support
- Optional restrictions on downloading functions permitted when system is armed
- Optional use of zone 9 for Telephone Line Monitor output processing
- Optional restrictions on various keypad displays during the armed or disarmed modes for higher security applications.
- Support for faster (8x) processing of polling loop sensor zone faults for serial number address devices
- Expansion of the number of zone lists for use with programmable outputs from 8 to 15
- Optional limit on the number of zones that may be bypassed per partition
- Optional use of the printer port to transmit ASCII Contact ID messages to computer systems, communication networks, and other communication media
- Provision of a Contact ID data packet on the keypad bus for interface to communication networks and other communication media
- Support for Final Contact Set arming mode
- Support for future intelligent polling loop motion sensors that will send more data on the bus
- Support for Robofon version of Contact ID format
- Optional communication of verified intrusion alarm reports and provision of a unique output
- Support for the processing of high and low sensitivity maintenance signals from intelligent polling loop addressable smoke detectors
- Support for special Scandinavian required software features to permit insurance regulatory approvals
- Support for special telecom hardware/software capabilities for PTT approvals in Finland, Norway, Sweden, Netherlands, Belgium, France, and Australia.

Basic Wired Zones

Provides 9 basic wired zones:

- EOLR supervision (optional for zones 2-8) supporting N.O. or N.C. sensors
- Individually assignable to one of 8 partitions
- Up to 16 2-wire smoke detectors on zone 1
- 4-wire smoke or heat detectors on zones 1-8
- Up to 50 2-wire latching glassbreak detectors on zone 8

Polling Loop Expansion

Supports up to 119 additional wired zones using a built-in polling (multiplex) loop interface. Current drain can total up to 128mA. Polling loop zones have the following characteristics:

- Must use RPM (Remote Point Module) devices
- Supervised by control panel
- Individually assignable to one of 8 partitions

Wireless Expansion:

Supports up to 128 wireless zones using 5881/5882EU type RF Receiver (less if using basic wired and/or polling loop zones). Wireless zones have the following characteristics:

- Supervised by control panel for check-in signals (except certain non-supervised transmitters)
- Supervised for low battery condition
- Cover removal tamper protection for 5800/5800EU series supervised transmitters
- Wall removal tamper protection for 5800EU series supervised transmitters
- Individually assignable to one of 8 partitions



For specific information regarding number of wireless zones supported by each RF receiver, see **Wireless Expansion** later in this manual.

Peripheral Devices

Supports up to 32 addressable devices, which can be any combination of 6139/5839EU keypads, RF receivers (5881/5882EU), relay modules (4204), and the 4286 VIP module. Peripheral Devices have the following characteristics:

- Terminated at the Keypad Port terminals on the control panel (except for wireless 5839EU)
- Each device set to an individual address (physically) according to the device's instructions
- Each device enabled in the system using the *Device Programming Mode*

Optional Vista Interactive Phone Module

Supports the Ademco 4286 VIP Module, which permits access via telephone to do the following:

- Obtain system status information
- Arm and disarm security system
- Control relays and/or Powerline Carrier devices

Supervisory Zones

Provides zones for supervision of the following:

- J7 Trigger Outputs Zone 973
- RF Receivers Zones 988, 990
- Polling Loop Zone 997

Keypad Panic Keys

Accommodates three keypad panic keys: 1+* (A), *+# (B), and 3+# (C).

- Designated as zones 995 (1+*), 996 (3+#), and 999 (*+#)
- Activated by wired and wireless keypads
- Activated and reported separately by partition, distinguished by Subscriber Acct. No. (or Partition No. if Contact ID reporting is used)

8 Partitions

Provides the ability to control 8 separate areas independently, each functioning as if it had its own separate control. Partitioning features include:

- Up to 3 "Common Area" partitions, which arm automatically when the last partition (1-8) that shares the common area is armed and disarms when the first partition (1-8) that shares the common area is disarmed
- A Master Partition (9) to which keypads may be assigned to view the status of all 8 partitions at the same time
- Keypads assignable to one of 8 partitions or to Master Partition 9 to view system status
- Ability to assign Relays/Powerline Carrier devices to one or all 8 partitions
- Certain system options selectable for each partition, such as Entry/Exit Delay and Subscriber Account Number

User Codes

Accommodates 150 user codes, all of which can operate any or all partitions. Each user, if assigned to more than one partition, retains the same user number across all partitions, and will only utilise one user "slot" in the system. Certain characteristics must be assigned to each user code as follows:

- Authority level for each partition (Master, Manager, or several other Operator levels)
- Opening/Closing central station reporting option
- What partitions the code can operate
- Global arming capability (arm and disarm all partitions the code has access to in one command)
- Use of a wireless transmitter to arm and disarm the system (wireless transmitter must first be "enrolled" into the system)

Pass Point Access Control System (ACS)

If the PassPoint ACS has uncommitted zones, up to 32 of these zones can be used as if they were basic wired zones, as long as they are within VISTA-120's total capacity of 128 protection zones.

Keypad Macros

Accommodates up to 4 keypad macro commands per partition (each macro is a series of keypad commands), which can be assigned to the A, B, C and D keys on each partition's keypads.

This means, for example, that by pressing the "D" key, the system can be programmed to log onto another partition, bypass zones 2 and 3, and arm that partition in the AWAY mode (explained in detail later in this manual). Each macro can be up to 32 characters in length.

Optional Output Devices (4204 Relays and Powerline Carrier [i.e., X-10] Devices)

Accommodates the use of 32 output devices, which can be a combination of ADEMCO's 4204 Relay Modules or Powerline Carrier Devices (i.e., X-10), and up to 64 polling loop trigger outputs (4 per 4208-4) or relay outputs (1 per 4101SN). Each 4204 module provides four "Form C" relays for general purpose use.

Powerline Carrier Devices are controlled by signals sent through the electrical wiring at the premises via a 4300 transformer or other appropriate modulator (e.g. XM10E in Europe; XF10 in Australia). Therefore, if using Powerline Carrier Devices, a 4300 (110V) or XF10 (220V) transformer must be used in place of the regular system transformer (plug-pack) in the markets using those devices. Elsewhere, the power transformer and the line carrier modulator are separate (Europe/XM10E).

Output devices have the following characteristics:

- Can activate in response to system events
- Can activate using time intervals
- Can be activated manually using the #70 relay command mode
- Can each have an alpha descriptor assigned to it
- Can be activated remotely from the PC downloader during the download session

Access Control

VISTA-120 supports the capability with Ademco's PassPoint Access Control System (ACS), PassPoint ACS processes card reader information and controls the locking and unlocking of doors. PassPoint also has input zones and output relays/triggers. VISTA-120 can incorporate uncommitted ACS zones as part of its security system and can control uncommitted ACS relays as if they were part of its own relay group. VISTA-120 arming stations--wired and wireless keypads and RF keys and zones--can be used to control doors in the ACS. Conversely, PassPoint access cards can control relays, triggers, and X-10 AC mains signalled devices in the VISTA-120 system. The arming status of VISTA-120 partitions can control access through doors in the PassPoint ACS.

If programmed and PassPoint is not used, VISTA-120 provides users with a command which activates a relay for two seconds to open access doors (e.g. area door). Each partition can be assigned one access control relay.

Optional Keyswitch

Supports the Ademco 4146 keyswitch on any one of the system's 8 partitions. If used, zone 7 is no longer available as a protection zone.

In addition, supports **one** keyswitch per partition via use of a serial number multiplex RPM (i.e. 4193SN) with a double pole switch (key removable in both the arm and disarm positions).

Voltage Triggers

Provides a trigger connector whose pins change state for different conditions. Used with Long Range Radio transmitters or other devices such as a voice dialler, a derived channel STU, a remote keypad sounder, keyswitch Armed and Ready LEDs.

Event Log

Keeps a log of different event types (enabled in programming) up to a total of 224 events.

- Can be viewed at the keypad or through the use of V-Link upload software
- Can be printed on a serial printer using a 4100SM module as an interface to the control.

Scheduling

- Open/Close schedules (for control of arming/disarming and reporting)
- Holiday schedules (allows different time windows for Open/Close schedules)
- Timed Events (activate relays, auto-bypass/unbypass, auto-arm/disarm, etc.)
- Access schedules (for limiting system access to users by time and/or day)
- End User Output Programming mode (provides 20 timers for relay control)

Audio Alarm Verification Option

Provides a programmable Audio Alarm Verification (AAV) option which can be used in conjunction with an output relay to permit voice dialogue between an operator at the central station and a person at the protected premises.

- Requires the use of an optional AAV unit, such as Eagle model 1250
- If used, Zone 5 is no longer available as a protection zone

Video Alarm Verification Option

Provides a programmable Video Alarm Verification (VAV) option, which can be used in conjunction with an output relay to permit video imagery of the protected premises using standard telephone lines.

Requires the use of a Video Transmitter and associated Video Receiver.

Cross-Zoning Capability

Helps prevent false alarms by preventing a zone from going into alarm unless its linked zone is also faulted within five minutes.

Exit Error False Alarm Prevention Feature

- System can tell the difference between a regular alarm and an alarm caused by leaving an Entry/Exit door open. If not subsequently disarmed, faulted E/E zone(s) will be bypassed and the system will arm
- Generates an "Exit Error" report by user and by zone so the Central Station knows it was an exit alarm and who caused it

Improved Downloading Speed

Uploads and downloads at 300 baud (predecessor control rate is 75 baud), making upload/download speed approximately four times faster.

Communication Formats

Supports the following formats for the Primary and Secondary Central Station receivers:

- Ademco Low Speed (Standard or Expanded)
- Sescoa/Radionics
- Ademco Express
- Ademco Expanded High Speed
- Ademco Contact ID

PSTN (Public Switched Telephone Network) Compatibility

The initial release VISTA-120 is suitable for use in many national telephone systems around the world, but the latest versions of VISTA-120 have specifically designed hardware and software capabilities to meet the PSTN regulation requirements of Norway, Sweden, Finland, Netherlands, Belgium, and Australia.

Alternative Communications Media Capabilities

- Contact ID messages appear in a special keypad bus data packet that can be extracted by Long Range Radio transmitters, CATV modems and various network interface devices designed to access them.
- Contact ID messages can optionally be transmitted in ASCII through the printer output for RS232C interface to host computers and various network interface devices.

Built-in User's Manual and Descriptor

Contains a built-in Users Manual and Descriptor Review mode.

- By pressing and holding any of the keypad function keys for 5 seconds, a brief explanation of that particular function scrolls across the alpha-numeric display.
- By pressing and holding the READY key for 5 seconds and then releasing it, all programmed zone descriptors can be displayed (one at a time). This serves as a check for installers to be sure all descriptors are entered properly.

Planning A Partitioned System

Theory of Partitioning

This system provides the ability to arm and disarm up to 8 different areas, each as if it had its own control. These areas are called partitions. Partitions are used when the user desires to disarm certain areas while leaving other areas armed, or to limit access to certain areas to specific individuals. Each user of the system can be assigned to operate any or all partitions, and can be given a different authority level in each.

First, you must determine how many partitions are required (1-8). This must be done before anything can be assigned to those partitions.

Keypads

Each keypad must be given a unique "address" and assigned to one partition (can also be assigned to Partition 9 if "Master" keypad operation is desired--see *Master Keypad Setup and Operation* later in this section).

Zones

Each zone must be assigned to one partition. The zones assigned to a partition will be displayed on that partition's keypad(s).

Users

Each user can be assigned to one or more partitions. If a user is to operate more than one partition and would like to arm/disarm all or some of those partitions with a single command, the user must be enabled for "Global Arming" for those partitions (when entering user codes).

A user with access to more than one partition (multiple access) can "log on" to one partition from another partition's keypad, provided that programme field 2*18: ENABLE GOTO is enabled for each partition you want to log on to from another.

Up to 3 partitions can be selected as "common area" partitions, and other partitions can affect these partitions by causing arming/disarming of these partitions to be automated (see *Common Area Logic*, later in this section).

Setting Up a Partitioned System

The basic steps to setting up a partitioned system are described below. If you need more information on how to programme the prescribed options, see *SECTION 4: Programming*, as well as each corresponding section's programming procedure.

1. Determine how many partitions the system will consist of (programmed in field 2*00).
2. Assign keypads to partitions (#93 Device Programming mode).
3. Assign zones to partitions (#93 Zone Programming mode).
4. Confirm zones are displayed at the keypad(s) assigned to those partitions.
5. Assign users to partitions.
6. Enable the GOTO feature (programme field 2*18) for each partition a multiple-access user can "log on" to (alpha keypad only).
7. Programme Partition-Specific fields (see *SECTION 5: Data Field Descriptions*).

Common Area Logic

When an installation consists of one or more partitions shared by users of other partitions in a building, those shared partitions may be assigned as the "common area" partitions for the system (programme fields 1*11, 1*14, 1*17). An example of this might be in a medical building where there are two doctor's offices and a common entrance area (see example that follows explanation).

This option employs logic for automatic arming and disarming of the common area. Programming fields affect the way the common area will react relative to the status of other partitions. They are: 1*12, 1*15, 1*18 (Affects Common Area) and 1*13, 1*16, 1*19 (Arms Area).

1*12, 1*15, 1*18 - Affects Common Area (must be programmed by partition)

Setting this option to 1 for a specific partition causes that partition to affect the operation of the common area as follows:

- When the first partition that affects the common area is disarmed, the common area will also be disarmed.
- The common area cannot be armed unless every partition selected to affect the common area is armed.
- Arming the last partition that affects the common area **will not** automatically attempt to arm the common area.

1*13, 1*16, 1*19 - Arms Common Area (must be programmed by partition)

Setting this option to 1 for a specific partition causes that partition to affect the operation of the common area as follows:

- When the first partition that affects the common area is disarmed, the common area will also be disarmed.
- The common area cannot be armed unless every partition selected to affect the common area is armed.
- Arming the last partition that is programmed to arm the common area will automatically attempt to arm the common area. If any faults exist in the common area partition, or another partition that affects the common area is disarmed, the common area cannot be armed, and the message "UNABLE TO ARM LOBBY PARTITION" will be displayed.



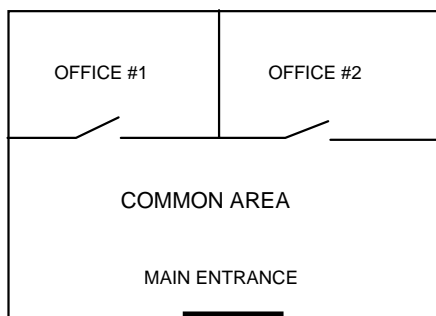
You cannot select a partition to "arm" the common area unless it has first been selected to "affect" the common area. Enable field 1*12, 1*15, 1*18 before enabling field 1*13, 1*16, 1*19 respectively.

The following chart summarizes how the common area partition will operate if different options are set for another partition in fields 1*12, 1*15, 1*18 and 1*13, 1*16, 1*19.

1*12, 1*15, 1*18 Affects Common Area	1*13, 1*16, 1*19 Arms Common Area	Disarms when partition disarms?	Attempts to arm when partition arms?	Can be armed if other partitions disarmed?
0	0	NO	NO	YES
1	0	YES	NO	NO
1	1	YES	YES	NO
0	1	---ENTRY NOT ALLOWED---		

Example

Here is an example of how the Common Area would react in a typical setup.



User #1 has access to Office #1 and the Common Area.
 User #2 has access to Office #2 and the Common Area.
 Office #1 is set up to affect the Common Area, but not arm it.
 Office #2 is set up to affect and arm the Common Area.

NOTE: In the tables below, the notations in parentheses () indicate the current status of the other partition when the user takes action.

Sequence #1:

	Office 1	Office 2	Common Area Action
User #1:	Disarms	(Armed)	Disarms
User #2:	(Disarmed)	Disarms	No Change
User #1:	Arms	(Disarmed)	No change
User #2:	(Armed)	Arms	Arms

Sequence #2:

	Office 1	Office 2	Common Area Action
User #2:	(Armed)	Disarms	Disarms
User #1:	Disarms	(Disarmed)	(No change)
User #2:	(Disarmed)	Arms	No Change
User #1:	Arms	(Armed)	No Change

Notice that in sequence #1, since Office #2 was the last to arm, the common area also armed (Office #2 is programmed to affect *and* arm the common area). In sequence #2, the common area could not arm when Office #2 armed, because Office #1, which affects the common area, was still disarmed.

When Office #1 armed, the common area still did not arm because Office #1 was not programmed to arm the common area. User #1 would have to arm the common area manually. Therefore, you would want to programme a partition to affect *and* arm the common area, if the users of that partition are expected to be the "last out" of the building.

Common Area Programming Requirements

The following should be considered when assigning common areas.

1. Common areas must be defined in ascending numerical order. That is, the common area containing the lowest partition number should be defined as common area 1 (ex. Do not define partition 8 as common area 1 and partition 1 as common area 2).
2. Common area 1 must be defined before defining common area 2, and common area 2 must be defined before defining common area 3.
3. A common area cannot be designated as an "affecting" and/or "arming" partition of another common area.
4. A partition not defined as a common area can be designated as an "affecting" and/or "arming" partition for more than one common area. If designated as an "arming" partition, it must also be an "affecting" partition

How User Access Codes Affect the Common AreaCodes with "Global" Arming

If a code is given "global arming" when it is defined (see *SECTION 11: Security Access Codes*), the keypad will ask "Arm all?" or "Disarm all?" whenever the user tries to arm or disarm the partitions he has access to from a keypad. This allows the user to pick and choose the partitions to be armed or disarmed, and so eliminates the "automatic" operation of the common area. Keep in mind, however, that if attempting to arm all, and another "affecting" partition is disarmed, the user will not be able to arm the common area, and the message "UNABLE TO ARM COMMON AREA PART" will be displayed.

Codes with "Non-Global" Arming

If arming with a non-global code, the common area partition operation will be automatic, as described by fields 1*12, 1*15, 1*18 and 1*13, 1*16, 1*19.

Other Methods of Arming/Disarming

When arming or disarming a partition that affects and/or arms the common area in one of the following manners, common area logic remains active:

- Quick-Arm
- Keyswitch
- Wireless Button
- Wireless Keypad

Arming/Disarming Remotely

If arming or disarming remotely (through V-LINK downloading software), the common area will not automatically follow another partition that is programmed to arm or disarm the common area. The common area must be armed separately, after arming all affecting partitions first.

Auto-Arming/Disarming

If scheduling is used to automatically arm and/or disarm partitions, the common area partition will not automatically follow another partition that is programmed to arm or disarm the common area. The common area must be included as a partition to be armed/disarmed.



If using auto-arming, make sure that the **Auto-arm Delay** and **Auto-arm Warning** periods (fields 2*05 and 2*06) combined are longer than that of any other partition that affects the common area. This will cause the common area to arm last.

Master Keypad Setup and Operation

Although this system has eight actual partitions, it provides an extra partition strictly for the purpose of assigning keypads as "Master" keypads for the system.

Any keypad assigned to Partition 9 in #93 Device Programming mode will become a "Master" keypad. A Master keypad reflects the status of the entire system (Partitions 1-8) on its display at one time. This is useful because it eliminates the need for a security officer in a building to have to "log-on" to various partitions from one partition's keypad to find out where an alarm has occurred.

The following is an example of a typical display:

SYSTEM	1	2	3	4	5	6	7	8
STATUS	R	R	N	N	A	T	B	A

Possible status indications include:

A = Armed Away	M = Armed Maximum
S = Armed Stay	I = Armed Instant
R = Ready	N = Not Ready
B = Bypassed/Ready	* = Alarm Memory/Trouble present

To obtain more information regarding a particular partition, enter * + [Partition No.] (i.e., * 4). In order to affect that partition, the user must use a code that has access to that partition. Also, in order for a user of any partition to log onto Partition 9 to view the status of *all* partitions, that user must have access to all partitions. Otherwise, access will be denied.

The following is an example of what would be displayed for a fault condition on Zone 2 (Loading Dock Window) on Partition 1 (Warehouse) when logging on from a keypad in Partition 9:

WHSE DISARMED KEY T FOR FAULTS

This is the normal display that appears at Partition 1's keypad(s). Pressing [*] will display:

FAULT 002 LOADING DOCK WINDOW

Additional zone faults will be displayed one at a time. To display a new partition's status, press [*] + [Partition No.]. This will display the status of the new partition.

The "Armed" LED on a Master keypad will be lit only if *all* partitions have been armed successfully. The "Ready" LED will be lit only if *all* partitions that are disarmed are "ready to arm." Neither LED will be lit if only some partitions are armed and only some disarmed partitions are "ready."

The sounder on a Master keypad will reflect the sound of the most critical condition on all of the partitions. The priority of the sounds is as follows:

- A. Pulsing fire alarm sounds
- B. Steady burglar alarm sounds
- C. Trouble sounds (rapid beeping)

The sounder may be silenced by pressing any key on the Master keypad or a keypad in the partition where the condition exists.



A Master keypad uses the same panics as Partition 1. Master keypad panics are sent to Partition 1, and will activate in Partition 1. Therefore, panics must be programmed for Partition 1.

Installing the Control

Mounting the Cabinet

1. Mount the control cabinet to a sturdy wall using fasteners or anchors (not supplied) in a clean, dry area, which is not readily accessible to the general public. The back of the control cabinet has 4 holes for this purpose.
2. Before mounting the circuit board, remove the metal knockouts for the wiring entry that you will be using. **DO NOT ATTEMPT TO REMOVE THE KNOCKOUTS AFTER THE CIRCUIT BOARD HAS BEEN INSTALLED.**

Installing The Cabinet Lock

1. Remove cabinet door, then remove the lock knockout from the door. Insert the key into the lock.
2. Position the lock in the hole, making certain that the latch will make contact with the latch bracket when the door is closed.
3. When correctly positioned, push the lock until it is held securely by its snap tabs.
Use an Ademco No. K4445 Lock (supplied).

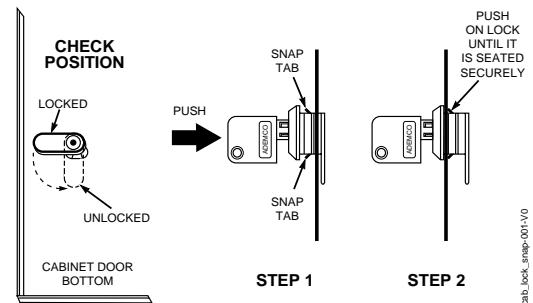


Figure 3-1. Installing The Lock

Installing the Control's Circuit Board

Refer to the Mounting the PC Board *Figure 3-2*.

1. Hang the three mounting clips on the raised cabinet tabs. Make sure the clip orientation is exactly as shown in *Figure 3-2* to avoid damage to the clip when mounting screws are tightened. This will also avoid problems with insertion and removal of the PC board.
2. Insert the top of the circuit board into the slots at the top of the cabinet. Make certain that the board rests in the slots as indicated in step 2 detail.
3. Swing the base of the board into the mounting clips and secure the board to the cabinet with the accompanying screws.



Make certain that the mounting screws are tight. This insures that there is a good ground connection between the PC board and the cabinet. Also, dress field wiring away from the microprocessor (center) section of the PC board. Use the 2 loops on the left and right sidewalls of the cabinet for anchoring field wiring using tie wraps. These steps are important to minimizing the risk of panel RF interference with television reception.

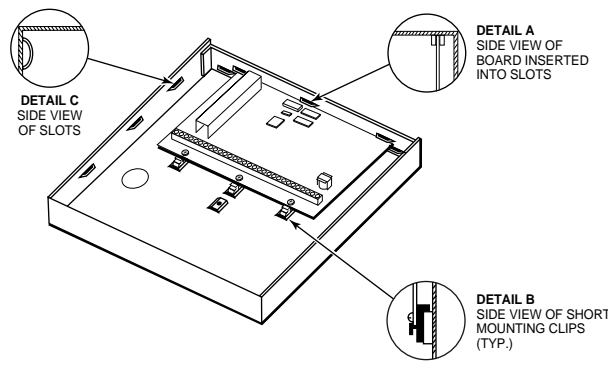


Figure 3-2. Mounting The PC Board

Installing the Keypads

- Two Line Alpha Display wired 6139 and wireless 5839EU
- Up to 32 addressable devices, including keypads, may be used in the system, as long as the auxiliary current is available (you may need to use an auxiliary power supply if the 750mA auxiliary output is exceeded)

To install the keypads, perform the following steps:

1. Mount the keypads at a height that is convenient for the user. Refer to the instructions provided with the keypad for mounting procedure. Refer to the mounting instructions and template included with the keypad for specific information.
2. Determine wire size by referring to the wiring length/size chart below.
3. Wire keypads to a single wire run or connect individual keypads to separate wire runs. The maximum wire run length from the control to a single keypad which is wired back to the control must not exceed the lengths listed in the table.

Wire Run Length/Size Table	
Wire Size	Length
0.64 mm	137 m
0.81 mm	213 m
1.0 mm	335 m
1.3 mm	533 m



The length of all wire runs combined must not exceed 610 metres when unshielded quad conductor cable is used (305 metres if shielded cable used.)

If more than one keypad is wired to a run, then the above maximum lengths must be divided by the number of keypads on the run (i.e. the maximum length would be 69 metres if two keypads are wired using 0.64mm diameter wire).

For keypads connected to a single 4-wire run, determine the current used by all units connected to the single wire run, then refer to the Wiring Run chart to determine the maximum wire length that can be safely used for each wire size. Current drain for each device can be found in the Installation Instructions accompanying the device.

4. Run field wiring from the control to the keypads (using standard 4-conductor twisted wire cable using the wire size determined in step 1).
5. Connect keypads to the Keypad Port terminals 6, 7, 8, and 9 on the control board, as shown below.

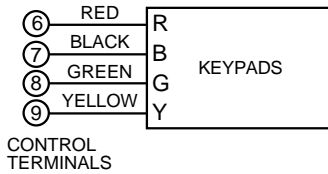


Figure 3-3. Keypad Connections To the Keypad Port Terminals

Addressing the Keypads



The keypads will not operate until they are assigned an address and enabled in the system's Device Programming Mode.

Set each keypad to an individual address (00-30) according to the keypad's instructions. Set one alpha keypad for address "00" and other keypads for higher addresses (01, 02, and 03 are enabled in the system's default programme). Any keypads set for address 04 and above will appear blank until they are enabled in the system's programme.



Keypads set to the non-addressable mode (address 31) may interfere with other keypads (as well as other devices) connected to the keypad terminals.

Using a Supplementary Power Supply to Power Additional Keypads

The control provides 750mA of auxiliary standby power for powering keypads and other devices from the auxiliary power output. Aside from this, the control can support up to 32 peripheral devices (keypads, RF receivers, relay modules, etc.). The backup battery will supply power to these devices in the event that AC power is lost. When the control's auxiliary power load for all devices exceeds 750mA, you can power additional keypads from a regulated, 12VDC power supply (e.g., AD12612). The AD12612 power supplies have a backup battery that can power these keypads in the event of AC mains power loss.



Keypads powered from supplies which do not have a backup battery **will not function** when AC mains is lost. Therefore, be sure to power at least one keypad from the Control's auxiliary power output.

Connect additional keypads as shown below using the keypad wire colours shown. Be sure to observe the current ratings for the power supply used.



Make connections directly to the screw terminals as shown. Make no connection to the keypad blue wire (if present). Be sure to connect the negative (–) terminal on the Power Supply unit to terminal 7 (AUX –) on the control.

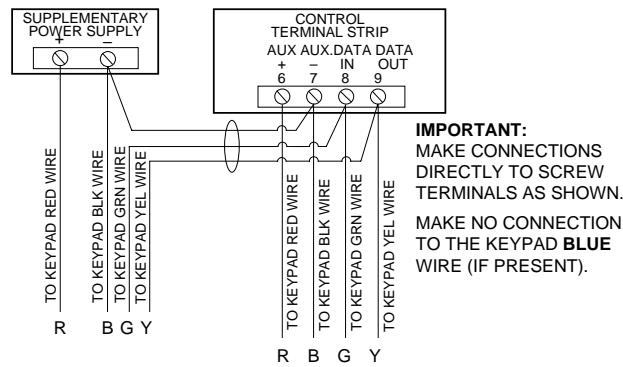


Figure 3-4: Using A Supplementary Power Supply For Keypads

Installing External Sounders

The Control provides one bell/siren relay output used to power external alarm sounders. This output is rated at 10-13.8VDC, 2.8A maximum (including auxiliary current drain).



Exceeding the prescribed current limits will overload the power supply or may possibly trip the bell output circuit protector.

The total current drain from this output can be up to 2.8 amps. A battery must be installed since current in excess of 750mA is supplied by the battery. Up to two 702 sirens can be used, wired in series. Up to two 719 sirens can be used wired in parallel.

Compatible Sounders

Model Number	Device Type	Description
702	Outdoor Siren	Self-contained siren (driver built-in) and weatherproof for outdoor use. Can be wired for either a steady or yelp sound and is rated at 120 dB @ 3m. This siren can also be tamper protected, or can be mounted in a metal cabinet (716), which can be tamper protected.
719	Compact Outdoor Siren	Compact, self-contained siren (driver built-in), and weather proof for outdoor use. Can be wired for either a steady or yelp sound, and is rated at 90 dB @ 3m. A 708BE cabinet is available, which can be tamper protected if necessary.
747 747F	Indoor Siren	Attractive, self-contained indoor siren (driver built-in), provides steady or warble tones and is rated at 95dB @ 3m.
ABB1031	Motor Bell & Box	AMSECO motor bell & box, rated at 81 dB @ 3m.
PA400B (beige) PA400R (Red)	Indoor Piezo Sounder	System Sensor indoor piezo sounder, (red or beige), rated at 90 dB @ 3m.
AB12M	Armoured Bell	For High Security Commercial Burglary installations.

Make connections to terminals 4 (positive output) and 5 (negative return).

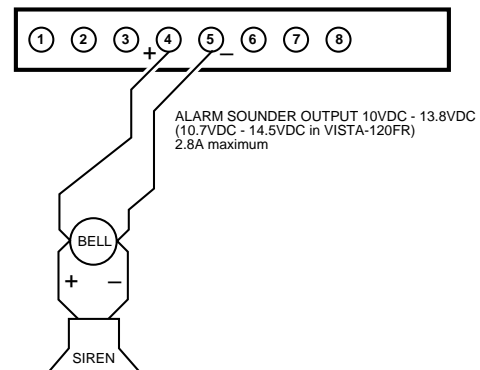


Figure 3-5: External Sounder Connections

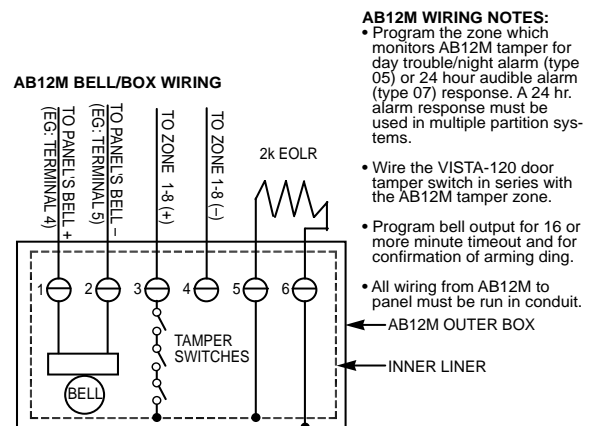


Figure 3-6: AB12M Bell Box Wiring

Programming Option

Programme field *08 permits the external sounder output to be altered so that it is activated normally to charge the battery in a self-actuated external sounder and is interrupted for alarm conditions (continuously for intrusion/audible panic sounding and pulsed for fire alarm sounding).

Standard Phone Line Connections

- Connect the incoming phone line and handset wiring to the main terminal block as follows (see Standard Telephone Line Connections *Figure 3-7*). (Does not pertain to Australia)
 TB1-26: Local Handset (TIP)
 TB1-27: Local Handset (RING)
 TB1-28: Incoming Phone Line (TIP)
 TB1-29: Incoming Phone Line (RING)
- In Australia, plug the phone cord into the jack on the control's PCB.



To prevent the risk of shock, disconnect phone lines at telco jack before servicing the panel.

PABX

If the communicator is connected to a telephone line inside a PABX, be sure the PABX has a back-up power supply that can support the PABX for 24 hours. Many PABXs are not power backed up and connection to such a PABX will result in a communication failure if power is lost.

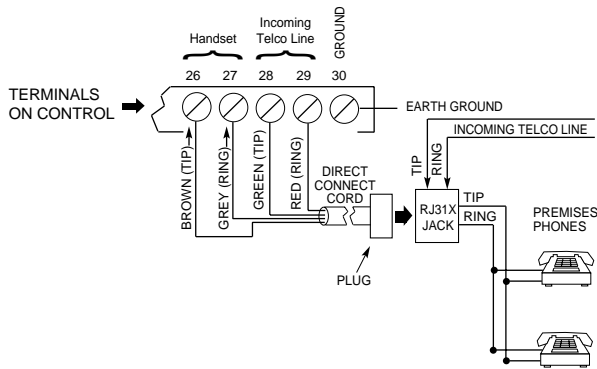


Figure 3-7. Standard Telephone Line Connections

Wiring Devices to Zones 1-9

Connect sensors/contacts to the basic wired zone terminals (10 through 23).

- Connect N.C. devices **in series** with the high (+) side of the loop. The 2K EOL resistor must be connected in series with the devices, following the last device on zones 1-8.
- Connect N.O. devices **in parallel (across)** the loop. Observe polarity when wiring smoke detectors. The 2K EOL resistor must be connected across the loop wires at the last device on zones 1-8.

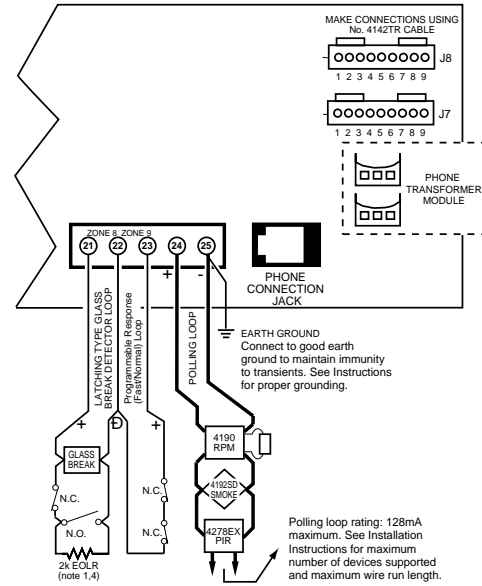


Figure 3-8. Australian Phone Connections

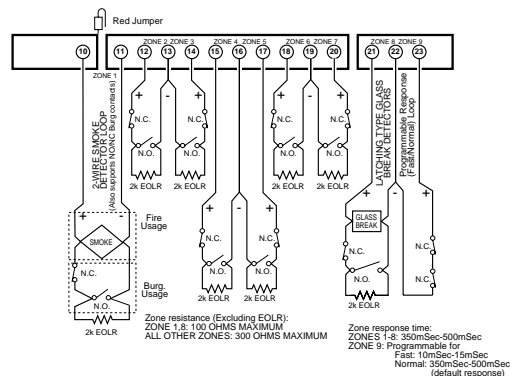


Figure 3-9. Zones 1-9 Wiring Connections



The maximum zone resistance is 100 ohms for zones 1 and 8, and 300 ohms for all other zones (excluding the 2K EOL resistor).

Wiring 2-Wire Smoke Detectors to Zone 1

Zone 1 has the added capability of supporting 2-wire smoke detectors. This zone provides enough standby current (2 mA) to power up to sixteen of the smoke detectors listed on the following page. Each zone provides only enough alarm current (20 mA) to power one smoke detector in the alarmed state. When assigned zone type 9, the second entry of a Security Code + OFF sequence at a keypad will interrupt power to this zone to allow detectors to be reset following an alarm.

1. Connect 2-wire smoke detectors across zone 1 terminals (10 & 11) as shown below. Observe proper polarity when connecting the detectors.
2. If an EOL resistor is presently connected across zone 1 terminals, remove it. **The EOL resistors must be connected across the loop wires of each zone at the last detector.**



The alarm current provided by zone 1 will support only one smoke detector in the alarmed state.

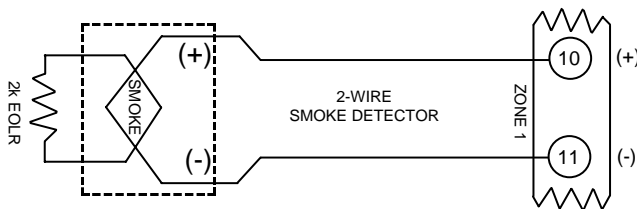


Figure 3-10: 2-Wire Smoke Detector Connected to Zone 1

Compatible 2-Wire Smoke Detectors

You may use up to sixteen 2-wire smoke detectors each on zone listed in the table below.

DETECTOR TYPE	DEVICE MODEL #
Photoelectric, plug-in head	System Sensor 2600EC
Photoelectric w/heat sensor, direct wire [†]	System Sensor 2300T
Photoelectric, direct wire [†]	System Sensor 2400
Photoelectric w/heat sensor, direct wire [†]	System Sensor 2400TH
Photoelectric w/B401B base [†]	System Sensor 2451
Photoelectric w/heat sensor and B401B base [†]	System Sensor 2451TH
Ionisation, plug-in head	System Sensor 1600EC
Ionisation, direct wire [†]	System Sensor 1400
Ionisation w/B401B base [†]	System Sensor 1451
Photoelectric duct detect. w/DH400 base [†]	System Sensor 2451
Ionisation duct detector w/DH400 base [†]	System Sensor 1451DH
Ionisation, direct wire [†]	System Sensor 1100
Ionisation w/B110LP base [†]	System Sensor 1151
Photoelectric, direct wire [†]	System Sensor 2100
Photoelectric w/heat sensor, direct wire [†]	System Sensor 2100T
Photoelectric w/B110LP base [†]	System Sensor 2151

[†] NOTE: These smoke detectors are Listed for use with the VISTA-120 and are the **only** 2-wire smoke detectors that may be used in UL applications.

Unsupervised Usage of Zone 1

Zone 1 can also be used for normally closed, unsupervised devices by doing the following:

1. Cut the red jumper on the PC board located above Zone 1.
2. Connect closed circuit devices in series with terminals 10 and 11.

Wiring 4-Wire Smoke Detectors to Zones 1-8

When programmed for fire warning usage, all zones can monitor 4-wire smoke detectors or N.O. fire alarm initiating devices. You may use as many 4-wire smoke detectors as can be powered from the panel's auxiliary power output without exceeding the output's rating.



Auxiliary power to 4-wire smoke detectors is not automatically reset after an alarm and therefore must be momentarily interrupted using either a normally-closed momentary switch wired in series with one side of the aux. power to the smokes, or using a 4204 relay as described below.

Using a 4204 relay allows the detectors to be reset via the second entry of a Security Code + OFF sequence. The 4204 relay must be programmed to activate on Zone Type/System Operation 54 (Fire Zone Reset). See **SECTION 6: #93 Menu Mode Programming** for more information.

1. Connect 12 volt power for the detectors from Auxiliary Power terminals 6 and 7 as follows:
 - Wire the [+] side of Auxiliary Power (Terminal 6) to the N.C. contact of the 4204 relay.
 - Wire the Center Arm or Pole of the Relay to the [+] Power side of the smoke detector.
2. Connect the [-] side of the smoke detector to [-] Aux. Power (Terminal 7). Observe proper polarity when connecting detectors (see Figure 3-11).

NOTE: Power to 4-wire smoke detectors should be supervised (use a System Sensor A77-716-01 EOL relay module connected as shown).

3. Connect detectors (including heat detectors, if used) across terminals of the zone selected. All detectors must be wired in parallel. Remove the 2000 ohm EOL resistor if connected across the selected zone terminals. **You must connect the EOL resistor across the loop wires at the last detector.**

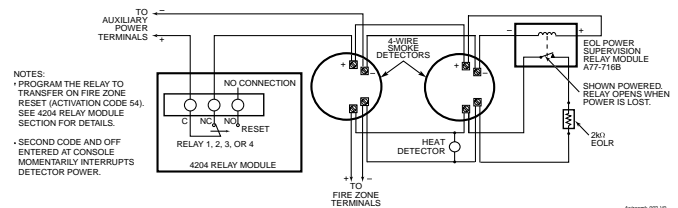


Figure 3-11: 4-Wire Smoke Detector Power Reset Using 4204 Relay Module

Compatible 4-Wire Smoke Detectors

Use any 4-wire smoke detector which is rated for 10-14VDC operation and which has alarm reset time not exceeding 6 seconds. Some compatible 4-wire smoke detectors are listed below.

Photoelectric, direct wire	System Sensor 2412
Photoelectric w/heat sensor, direct wire	System Sensor 2412TH
Ionisation, direct wire	System Sensor 1412

Wiring 2-Wire Latching Glassbreak Detector To Zone 8

Use zone 8 for connection of compatible 2-wire latching-type glassbreak detectors. Connect all detectors in parallel across zone 8 (terminals **21** and **22**).



Remove the 2000 ohm EOL resistor if connected across the selected zone terminals. You must connect the EOL resistor across the loop wires at the last detector.

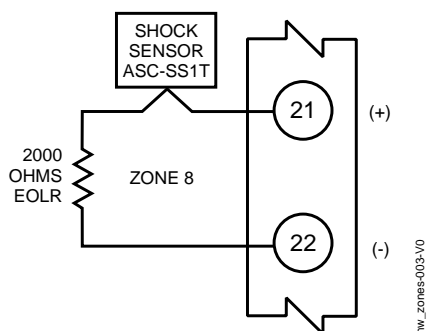


Figure 3-12. Wiring the ASC-SS1T Shock Sensor in Series to Zone 8

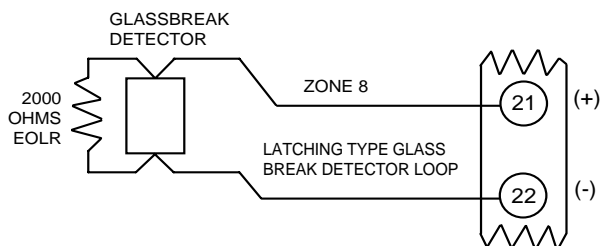


Figure 3-13. Wiring Latching Glassbreak Detectors in parallel to Zone 8.

After an alarm, the first code + OFF turns off the siren and disarms the system; the second code + OFF clears the memory of alarm and resets the glassbreak detector.

Compatible GlassBreak Detectors

Use detectors that meet the following ratings:

Standby Voltage:	5VDC–13.8VDC
Standby Resistance:	Greater than 20k ohms (equivalent resistance of all detectors in parallel)
Alarm Resistance:	Less than 1.1k ohms (see note below)
Alarm Current:	2 mA–10 mA
Reset Time:	Less than 6 seconds

NOTES:

The IEI 735L series detectors and ASC-SS1T shock sensors have been tested and found to be compatible with these ratings. You can use up to fifty IEI 735L detectors connected in parallel. You can use up to four ASC-SS1T sensors connected in series.

You can use detectors that exceed 1.1k ohms in alarm, provided they maintain a voltage drop in alarm of less than 3.8 volts.



The alarm current provided by zone 8 will support only one Glass Break detector in the alarmed state.



Do not use other NO or NC contacts when using glassbreak detectors on zone 8. Other contacts may prevent proper glassbreak detector operation.

If latching type devices are installed on both zones 1 and 8, both zones should be assigned to the same partition. If they are not, and both devices are in alarm at the same time, the resetting of one could cause a loss of alarm memory in the other.

Zone 9 Applications

This zone is unsupervised and is suitable for monitoring fast acting glass break sensors or vibration sensors. When using zone 9, keep the following in mind:

- Use only closed circuit devices connected in series with one another.
- Programme zone 9 as any response type *except* fire (type 09) or panic (types 6,7 or 8)
- Programme fast (10 msec) or normal (350 msec-500 msec) response in data field *14.



Avoid using mechanical magnetic or relay type contacts on zone 9 when programmed for fast response.

Installing Polling Loop Devices

You can expand the system from the basic 9 zones to up to 128 zones using the built-in 2-wire polling loop. Each device connected to the polling loop communicates with the panel about its status. These devices are called RPMs (Remote Point Modules).

The polling loop provides both power and data to the RPM zones, and is constantly monitoring the status of all zones enabled on the loop.

The maximum current drain of all devices on the polling loop cannot total more than 128mA (unless using a 4297 Polling Loop Extender Module).



Although each polling loop device is wired in parallel, each device has its own unique zone number (or group of zones). On some devices, this is determined by the setting of DIP switches. Other devices have a built-in unique serial number that must be "enrolled" into the control. Serial number mode **MUST** be used instead of DIP switch addressing mode for devices that can be set for either mode.

All devices on the polling loop must be wired in parallel to the [+] and [-] Polling Loop terminals of the control panel (24 and 25, respectively). You can wire from device to device, or have multiple branches connected directly to the control panel in a star configuration. Be sure to observe proper polarity.

To install the devices perform the following steps:

1. Run wires to each device on the polling loop using the following table for maximum wire runs per wire size. Twisted pair wire is recommended for all wire runs. Maximum total wire runs combined must not exceed 1220m regardless of wire size (610m if shielded wire is used).

Maximum Polling Loop Wire Runs

Wire Size	Max. Length
0.64 mm O.D.	198 m
0.81 mm O.D.	290 m
1.0 mm O.D.	457 m
1.3 mm O.D.	732 m



When running polling loop wires, they must not be within 15 cm of AC mains, telephone or intercom wiring. Since the polling loop is carrying data between the control panel and the devices, interference on this loop can cause an interruption in the communication. The polling loop can also cause outgoing interference on other wiring. If this spacing cannot be achieved, shielded wire must be used. (Note that the maximum wire length supported is halved for shielded wire.)

2. Wire each device to the polling loop, making sure to use correct polarity when making connections (refer to the device's instructions).
3. Note the polling loop devices that have DIP switches on them. Set each device's DIP switches for the zone number you are assigning it. Refer to the device's instructions or the DIP Switch Tables found at the end of this manual when setting addresses.

BASIC POLLING LOOP CONNECTIONS

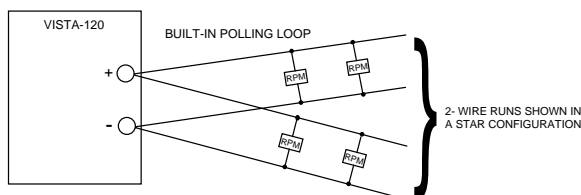


Figure 3-14. Polling Loop Connections



When in a star configuration, no individual run can be longer than the table indicates, and the total length of all the sensor star runs, combined, cannot exceed 1220m. If using unshielded wire in conduit or shielded wire, the maximum is 610m. If longer wire runs are needed, a 4297 Polling Loop Extender Module must be used.

Polling Loop Limitations

The built-in polling loop has the following limitations that must be observed:

- The maximum allowable current drain from the polling loop is 128mA. If device drain totals more than 128mA, a 4297 Polling Loop Extender Module is required.
- The 4297 Polling Loop Extender Module may be used to provide additional polling loop current, to extend the polling loop wire run, and/or to provide individual, electrically isolated polling loops. Refer to the 4297 Polling Loop Connection *Figures 3-15 and 3-16* later in this section.



Use of more than 50 DIP switch devices can greatly impact the panel's ability to respond to a change in status in a timely manner. DIP switch devices that affect response time include 4278EX, 4275EX, 4190WH, 7500, 9500



DO NOT use the 4197 Polling Loop Extender Module with the VISTA-120.

- Regardless of current drain, no more than 64 DIP switch devices or 119 serial number devices can be connected to the polling loop. Installations that require up to 119 zones using DIP switch devices will require the use of zone expanders (4190WH and/or 4208), which allow more than one zone on each expander. Otherwise, a 4297 Polling Loop Extender must be used.



Make certain to include the total current drain on the polling loop when figuring the total auxiliary load on the panel's power supply (see *Calculating the Battery Size Needed* later in this section).

Notes: - Do not use the 4197 module with VISTA-120.
- Refer to 4297 instructions for more detailed installation information.

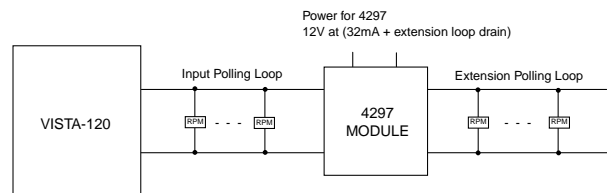


Figure 3-15. Polling Loop Connections Using One 4297 Extender Module

Notes:

- Do not use 4197 module with VISTA-120.
- Refer to 4297 instructions for more detailed installation information.
- The Limits shown below supercede the limits described in the 4297 instructions.
- Do not connect 4297 modules in series.

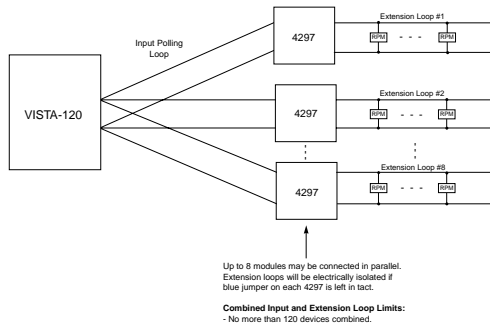


Figure 3-16. Polling Loop Connections Using Multiple 4297 Extender Modules

Polling Loop Supervision

An overload on the polling loop is indicated by a trouble on its supervisory zone (997) and reports as a trouble condition only, even if the system is armed. As such, it should be assigned zone type 05 if annunciation is desired.

If a device on the polling loop fails (the panel cannot "see" that device), the partition (or partitions) that use that device will display a trouble condition for all zones associated with that device. If the panel is armed when a device fails, the zones associated with that device will cause an alarm on the corresponding partition(s).



A trouble on Zone 997 will not prevent a partition from being armed, as long as all polling loop zones on that partition are bypassed.

Maintenance Signal Support

The control monitors maintenance signals from certain smoke detectors (4192CPM, 4192SDM, 4192SDTM). Maintenance signals are triggered when a detector gets dirty. The detector should be cleaned or replaced. If a detector maintains a high or low sensitivity condition for longer than 24 hours, the control sends a dialler report (trouble message for non-Contact ID reports; event code 385 or 386 for Contact ID reports), makes an event log entry, and displays HSENSxxx or LSENSxxx at the keypads (xxx = zone number).

Model Number	Type
998MX	Serialized Dual PIR
4101SN	Serial Number Single-Output Relay Module
4190SN	Serialized 2-Zone Expander
4190WH	2-Zone Expander
4191SN	Serial Number Recessed Reed Contact
4193SN	Serialized 2-Zone Expander
4208U	Universal 8-Zone Expander
4208-4	8-Zone Expander with 4 output triggers
4275EX	Dual PIR
4275EX-SN	Dual PIR
4278EX	Quad PIR
4278EX-SN	Quad PIR
4293SN	Serialized 1-Zone Expander
4297	Extender Module
4939SN-BR	Serial Number Surface-Mount Reed Contacts
4939SN-GY	Serial Number Surface-Mount Reed Contacts
4959SN	Aluminum Overhead Door Contact
5192SD	Photoelectric Smoke Detector
5192SDT	Photoelectric Smoke Detector w/Heat
9500SN	Dual Technology Glassbreak Detector

Wireless (RF) Zone Expansion

The VISTA-120 supports wireless zones that may be used exclusively or in addition to basic wired and/or polling loop zones. The system supports the 5800 series RF system using the following receivers:

5800 Series		5800EU Series	
Recvr	Zones	Recvr	Zones
5881ENL	up to 8	5882EU	up to 128
5881ENM	up to 16		
5881ENH	up to 128		

Wireless System Operation and Supervision

- The receiver responds to status and alarm signals from wireless transmitters [345 MHz (5800 series) and 433.92MHz (5800EU series)] within a nominal range of 60m, and relays this information to the control.
- Each 345MHz supervised transmitter sends a supervisory signal to the receiver every 70-90 minutes (433.92MHz transmitters transmit every 25 minutes). If, after a programmed interval of time (e.g., 12 hrs), the receiver does not hear from a particular transmitter, the word CHECK or TRBL will appear at the corresponding partition's keypad(s) accompanied by the zone number.

The trouble will not prevent you from arming the panel, as long as the zone is first bypassed.

- If, within a programmed interval of time (e.g., 12 hrs), the receiver does not hear from *any* of its transmitters, a CHECK or TRBL message appears for zones 988 (2nd receiver) or 990 (1st receiver) if zone type 05 is assigned to these supervisory zones. This may be an indication that the wireless receiver is not able to "hear" signals. The same indications are provided if the 5882EU transceiver detects that it is being jammed by a source of RF energy that is present for 30 seconds within any 60-second interval.
- The control checks the receiver connections about every 45 seconds. If the panel has lost communication with the receiver, a CHECK or TRBL message will appear for the receiver zone number (8xx, where xx = receiver's device address) if type 05 is assigned to these supervisory zones. This may be an indication that the wiring to the receiver is incorrect, or that the DIP switches are not set for the same address the receiver was assigned to in the panel's Device Programming mode.

- Two identical receivers can be used to provide either a greater area of coverage, or to provide redundant protection.
- Any zone from 1-128 can be used as a wireless zone, with the exception of zone 64 (reserved for a wireless keypad).

Wireless System Installation Advisories

- Place the receiver in a high, centrally located area for best reception. Do not place receiver on or near metal objects. This will decrease the range and/or block transmissions. Do not mount receivers or transmitters in an attic, where extreme temperatures could prevent proper operation.
- For maximum range, install the wireless receiver at least 3 meters from the Control panel or any keypads to avoid interference from the microprocessors in these units.
- If dual receivers are used:
 - Both must be at least 3m from each other, as well as from the Control panel and remote keypads.
 - Each receiver must be set to a different Device Address (01-07). The receiver set to the lower address is considered the 1st wireless receiver for supervisory purposes.
 - The house IDs must be the same if using a 5827/5827BD wireless keypad.
 - Using two Receivers *does not* increase the number of transmitters the system can support.

Installation and Setup of the 5881/5882EU Wireless Receivers

- Mount the receiver(s). Receivers must be mounted externally to the control and can detect signals from transmitters within a nominal range of 60m. Take this into consideration when determining mounting location.
- Connect the receiver's wire harness to the control's keypad terminals (6, 7, 8, and 9). Plug the connector at the other end of the harness into the receiver.
- Refer to the installation instructions provided with the receiver for further installation procedures regarding antenna mounting, etc.
- Set the receiver's DIP switches for an address (01-07) which is not being used by another device (i.e., keypads, relay modules, etc.).

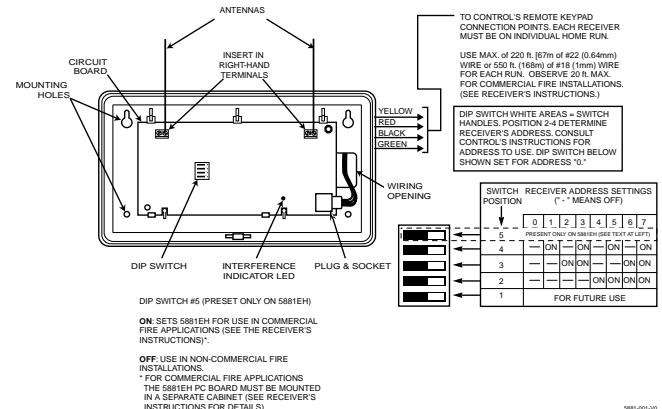


Figure 3-17. 5881 Wireless Receiver (cover removed)

5839EU/5882EU Notes

- 5882EU cover must be removed before enrolling 5839EU keypad into receiver.
- Each 5839EU can be enrolled in only one 5882EU (do not assign a given 5839EU to more than one transceiver).

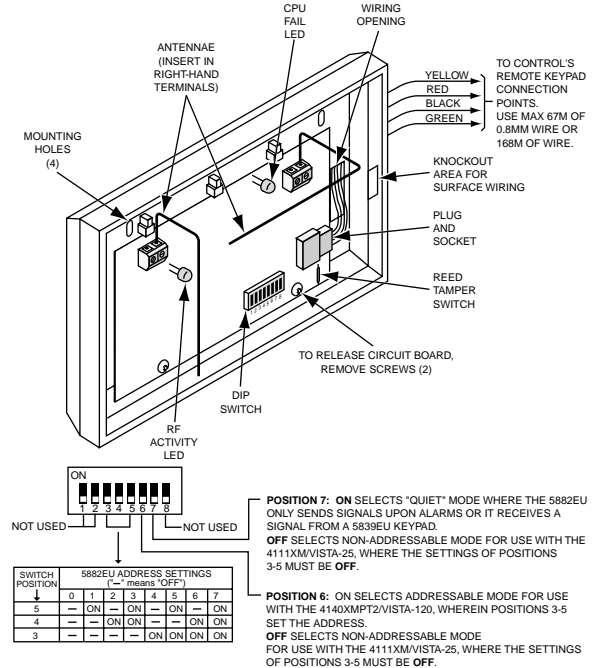


Figure 3-18. 5882EU Wireless Transceiver (cover removed)



Take note of the address you select for the wireless receiver as this address must be enabled in the system's *Device Programming* mode.

Installing the 5800TM Module

Installation of this module is necessary only if you are using one or more 5827BD Wireless Bi-directional keypads.

The 5800TM must be located between 0.3m and 0.6m from the receiver's antennas. The 5800TM must not be installed within the control cabinet. Mount the unit using its accompanying mounting bracket.

1. Connect the 5800TM to the control panel's keypad connection terminals, using the supplied connector with flying leads, as follows:

WIRE	TERMINAL ON CONTROL
RED (+12VDC)	Terminal 6
BLACK (Ground)	Terminal 7
GREEN (Data to Control)	Terminal 8
YELLOW (Data from Control)	Terminal 9
BLUE: Not Used	

2. Cut the red jumper for address setting 28; cut the white jumper for address 29; cut both jumpers for address 30.



This address must be enabled as an alpha keypad in the control's *Device Programming* mode and then assigned to a partition.

For additional information, refer to the 5800TM's instructions.

House ID Sniffer Mode

This mode applies only to 5700 series systems, or if you are using a wireless keypad (5827/5827BD) in a 5800 series system.

5700 series receivers respond only to transmitters set to the same House ID (01-31) that is programmed into the control panel. This prevents system interference from transmitters in other nearby systems. Use the House ID Sniffer Mode to make sure you do not choose a House ID that is in use in a nearby system. To enter this mode, proceed as follows:

1. Enter your "Installer Code" + [#] + [2].
2. The receiver will now "sniff" out any House IDs in the area and display them. Keep the receiver in this mode for about 2 hours to give a good indication of the House IDs being used. Use a House ID that is **not displayed**.
3. To exit the Sniffer Mode, simply enter your Installer Code + OFF.



Since Sniffer Mode effectively disables wireless point reception, Sniffer Mode **cannot** be entered while any partition is armed.

5800/5800EU Series Transmitter Setup

5800/5800EU series transmitters have built-in serial numbers that must be "enrolled" by the system using the # 93 Menu mode programming, or input to the control via the downloader 5800/5800EU series transmitters (except 5827 described separately) do not have DIP switches

Each transmitter's zone number is programmed into the system in # 93 mode. Some transmitters, such as the 5816, 5816EU and 5817, can support more than one "zone" (referred to as loops or inputs). On the 5816/5816EU for example, the wire connection terminal block is loop 1, the reed contact is loop 2. Each loop must be assigned a different zone number and enrolled separately.

For button transmitters (wireless "keys"), such as the 5804, and, you must assign a unique zone number to each individual button used on the transmitter. Each button on the transmitter also has a pre-designated loop or input number, which is automatically displayed when enrolled.

5800 Series Transmitter Supervision

Except for some transmitters that may be carried off-premises (5802, 5802CP, 5804, 5804EU, 5804BD, 5827), each transmitter is supervised by a check-in signal that is sent to the receiver at 70–90 minute intervals (25 minutes for 5800EU series). If at least one check-in is not received from each *supervised* transmitter within a programmed time period (i.e., 12 hours for 5800 or 2 hours for 5800EU), the "missing" transmitter number(s) and "CHECK" will be displayed.

The supervision for a particular transmitter that may be carried off the premises (5801, 5802MN, 5802MN2, 5802EU) may be turned off by enrolling it as a "UR" (Unsupervised RF) type, as described later.

5800 series transmitters have built-in tamper protection and will cause a "CHECK" or "TRBL" condition to be annunciated if covers are removed, provided that programme field *24 (Disable Expansion Zone Tamper) is set for "0." 5800EU series transmitters (5816EU, 5839EU and 5888EU) are also tamper protected against wall removal.

5800 Series Transmitter Battery Life

Batteries in the wireless transmitters may last from 4-7 years, depending on the environment, usage, and the specific wireless device being used. External factors such as humidity, high or low temperatures, as well as large swings in temperature may all reduce the actual battery life in a given installation. The wireless system can identify a low battery situation when the battery still has 30 days of life remaining, thus allowing the dealer or user of the system time to arrange a change of battery and maintain protection for that given point within the system.

Some transmitters (e.g., 5802 and 5802CP) contain long-life but non-replaceable batteries. At the end of their life, the complete unit must be replaced (and a new serial number enrolled by the control).

Button type transmitters (ex. 5801, 5802, 5802CP, 5804 & 5804EU) should be periodically tested by the user for battery life.



Do not install batteries in wireless transmitters until ready to enroll them. Though it is not critical to remove batteries after enrolling, it is recommended in order to avoid interference while enrolling additional transmitters.

Compatible 5800 Series Transmitters

Model	Product	Input Type
5801	Panic Transmitter	UR or RF
5802 5802CP	Pendant (Personal Emergency Transmitter) Belt Clip (Personal Emergency Transmitter)	BR Only
5802MN	Miniature (Personal Emergency Transmitter)	UR or RF
5802MN2	2-Button (Personal Emergency Transmitter)	UR or RF
5802EU*	2-Button (Personal Emergency Transmitter)	UR or RF
5804	RF Key Transmitter	BR Only
5804EU*	RF Key Transmitter	BR Only
5804BD	RF Key Bi-directional Transmitter	BR Only

Model	Product	Input Type
5806/5807/ 5808LST/ 5808EU	Photoelectric Smoke Detectors	RF
5816	Door/Window Transmitter	RF
5816EU	Door/Window Transmitter	RF
5816MN	Miniature Door/Window Transmitter	RF
5816TEMP	Temperature Sensor Transmitter	RF
5817	Multi-Point Universal Transmitter	RF
5818	Recessed Transmitter	RF
5819/ 5819EU	Shock Sensor Analyzer Transmitter	RF
5819S/ 5819EUS	Shock Sensor Analyzer Transmitter	RF
5827	Wireless Keypad	House ID
5827BD	Wireless Bi-directional Keypad	House ID
5849	Glassbreak Detector	RF
5852	Glassbreak Detector	RF
5888EU	PIR Detector	RF
5890	PIR Detector	RF
5890PI	PIR Detector with Pet Immunity	RF

* CE approved and specifically type approved in France, Germany, Italy, Netherlands, and Spain

Installing Output Devices

Relays and Powerline Carrier devices (i.e., X-10 brand devices) are programmable switches that can be used to perform many different functions. They can be used to turn lights on and off, control sounders, or for status indications. In this system, each device must be programmed as to how to act (ACTION), when to activate (START), and when to deactivate (STOP). Each of these is described in #93 Relay Programming mode. The system supports a total of 32 relays (provided by 4204 Relay modules) and/or Powerline Carrier devices. Each 4204 module provides 4 relays with Form C (normally open and normally closed) contacts.

Powerline Carrier devices are controlled by signals sent through the electrical wiring at the premises via a 4300 (110V) or XF10 (220V) transformer. Therefore, if using Powerline Carrier devices, a 4300 or XF10 transformer *must* be used in the markets using these devices in place of the regular system transformer.



The devices can be programmed to activate in response to a programmed **condition**. The system can also be programmed to activate these devices at specific **times** by using the #80 Scheduling Menu Mode—*Time Driven Events* function.

Wiring the 4204 Relay Module

- Set the 4204 DIP switches for a device address between 01-15 that is not being used by another device (keypads, RF receivers, etc.). If using more than one module, each module must be set to a different address.



The relay module will not operate until the device address you have chosen is enabled in the control's Device Programming mode.

- Connect the 4204 module(s) to the control's keypad terminals (6, 7, 8, and 9). Use the flying lead cable supplied with the relay module when mounting it in the control's cabinet. Use standard 4-conductor twisted cable when mounting the 4204 outside the cabinet.
- Directly wire each 4204 back to the panel. The maximum wire run length from the panel to the 4204 must not exceed:

Wire Size	Maximum Length
.64mm	38m
.81mm	60m
1.0mm	90m
1.3mm	150m

NOTE: DIP switch position 1
ON = enables tamper protection.
OFF = disables tamper protection.

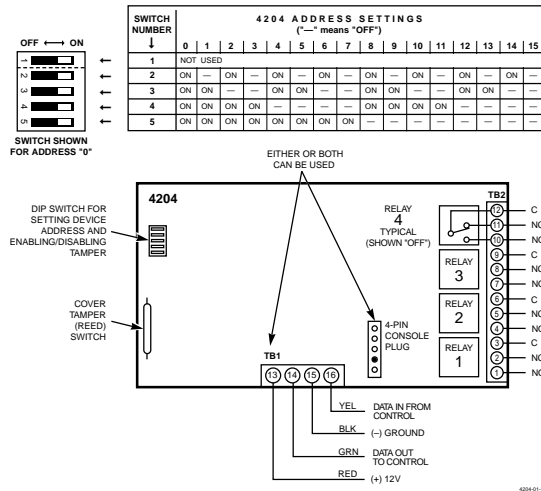


Figure 3-19. 4204 Relay Module

Installing Powerline Carrier Devices

If using 110VAC/60Hz Powerline Carrier devices, the 4300 transformer interface must be used *instead* of the regular 1361 transformer. The 4300 supplies the control panel with AC, and also sends control pulses through the premises electrical system to control the Powerline Carrier devices. In Australia, use the XF10 and in Europe, use the XM10E in addition to the normal 16.5VAC/40VA output transformer.

X-10 Powerline Carrier devices are either plugged into standard AC outlets or wired into the AC electrical system by a licensed electrician, depending on the type of device used. They respond to "on" and "off" commands sent from the panel, through the 4300/XF10/XM10E, to the receiving devices. For more information about installing the transformer, see *Connecting the AC Mains Transformer* later in this section.

NOTE: If required, a low-pass filter (available from X-10) can be installed at the exit of the premises AC network to avoid possible conflict with nearby powerline carrier systems.

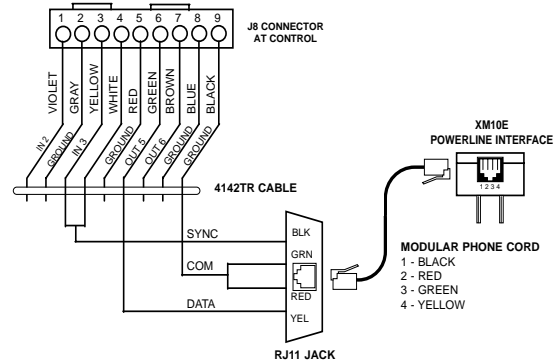


Figure 3-20. XM10E Modulator Connection

Open/Close Trigger Setup

Output 1 may alternately be programmed to change states when the system is armed in the away mode and then disarmed. If field 1*46 is set to 1, the output is set high when the system is in the "disarmed" state.

It switches to "0" volts when the system is armed in the "away" mode. This trigger will not change state unless *all* partitions are armed, and will change state again as soon as one partition is disarmed.

Installing a Remote Keypad Sounder

Output 1 may alternately be programmed for a remote keypad sounder. You may use an Ademco PAL 328N piezoelectric sounder for installations where you want the sounds produced by the keypad's built-in piezo sounder to be duplicated in another location for one partition. The panel will send all sounds remotely (i.e. alarm, trouble, chime, entry/exit, etc.) except for the short clicks associated with keypad key depression. One application of this feature might be to produce chime sounds in a location that is distant from the panel's keypads. You can also accomplish this by using relay outputs (see *SECTION 6: #93 Menu Mode Programming*).

Connect the Ademco piezo between the panel's auxiliary power and the J7 connector trigger output as shown in the Remote Keypad Sounding Connections *Figure 3-22*.

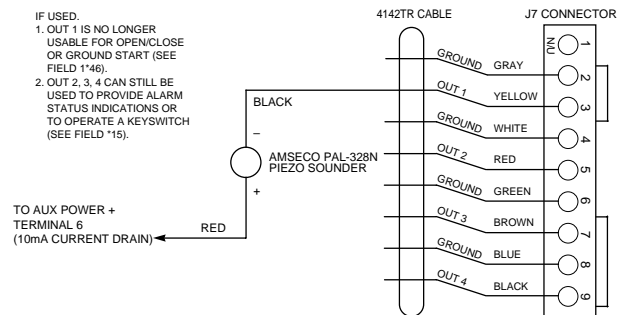


Figure 3-22. Remote Keypad Sounding Connections

Installing a Remote Keyswitch

If using an optional remote keyswitch for remote arming and disarming of the system, its switch must be connected to Zone 7 and its Ready and Armed status LEDs must be connected to the trigger outputs and programmed in order to become operational.



Note that a zone 7 keyswitch may be used in one partition only and Zone 7 is no longer available as a protection zone.

A momentary short across zone 7 will arm the partition in the "AWAY" mode. If the short is held for more than 3 seconds, the partition will arm in the "STAY" mode. After the partition has been armed, the next time Zone 7 is shorted, the partition disarms.

1. Connect the 4146 keyswitch's normally open momentary switch to Zone 7.
2. Connect a 2k EOL resistor across the switch regardless of whether or not zones 2-8 are selected to use EOL resistors.
3. Connect the keyswitch Armed and Ready LEDs to the J7 connector as shown.
4. Connect an optional closed circuit tamper switch (ex. No. 112) in series with zone 7.
5. Assign the keyswitch to its appropriate partition in programme field *15. Enable open/close reporting (user #0) for the keyswitch in field *40 (if desired).

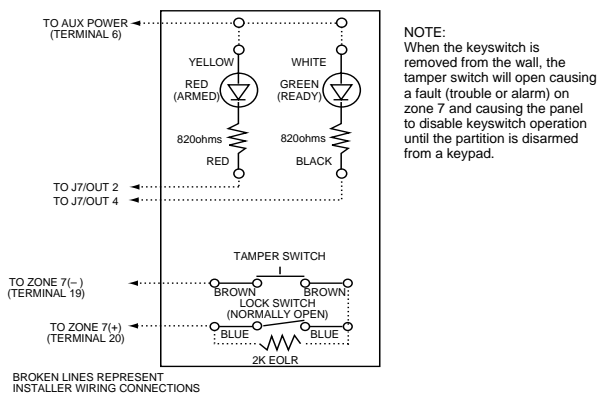


Figure 3-23. Remote Keyswitch Wiring
LED Indications

Green	Red	Meaning
Off	Off	Disarmed & Not Ready
On	Off	Disarmed & Ready
Off	On Steady	Armed Away
Off	Slow Flash	Armed Stay
Off	Rapid Flash	Alarm Memory

Auxiliary Alarm Signaling Equipment

The J7 header provides triggers for fire, burglary/audible panic, silent/duress alarm. These triggers are programmed as the defaults for Outputs, 2, 3, and 4. These may be used to trip equipment such as Long Range Radios, Voice Diallers, Direct Wire Transmitters.



The triggers for Fire (Output 2) and Silent Panic/Duress (Output 4) may be used to operate keyswitch armed and ready LEDs *instead* when field *15 is enabled.

When used as alarm triggers, these outputs are normally low, and go high when the corresponding alarm condition occurs. These triggers remain high until the security code + OFF is entered at the keypad, with the exception of the Silent Panic/Duress trigger, which is a 2-second pulse.

Keyswitch By Partition Configuration

In addition to being able to support a 4146 keyswitch on zone 7 of the control, you can add one keyswitch per partition via the use of a DPST or a DPDT keyswitch, wherein the key is removable in two positions: AWAY and OFF (disarm). Ademco does not manufacture a packaged keyswitch with status LEDs (if status LEDs are desired, each must be driven by a programmed relay output).

To use this configuration, connect each switch to Ademco's 4193SN 2-zone serial number RPM as shown below.

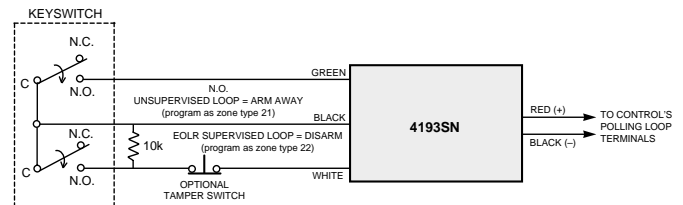


Figure 3-24. Keyswitch By Partition Wiring Connections

NOTE: The switch shown is Chicago Lock Company model EXA-112-2.

When the switch is NOT activated or is in the NC position, the partition is armed AWAY. When the switch is activated, the partition is disarmed. The unsupervised loop's zone must be assigned to zone type 21 (arm away) and the supervised loop's zone must be assigned to zone type 22 (disarm).

PROGRAMMING NOTE: Each zone of the 4193SN must be "enrolled" individually, but when the switch is turned, both zones activate. Therefore, before "enrolling" the serial number of a zone of the 4193SN, temporarily disconnect the wire from the side of the switch NOT being enrolled. After that zone is enrolled into the system, reconnect the wire, then temporarily disconnect the other wire to "enroll" the other zone.

The Figure 3-25 that follows shows how to make connections to the radio.

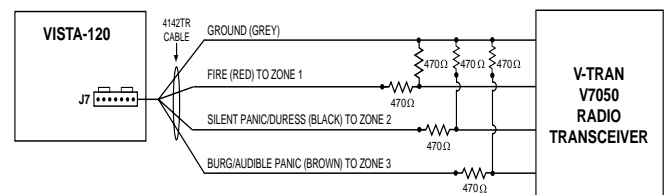


Figure 3-25. Auxiliary Alarm Signaling Equipment

Event Log Connections

This system has the ability to record up to 224 events of various types in a history log (224 event capacity). Each event is recorded in one of five categories with the time and date of its occurrence (if real-time clock is set). These categories are:

- Alarm
- Supervisory/Check
- Bypass
- Open/Close
- System Conditions

The log may be viewed (Display Mode) on an alpha keypad, or can be printed (Print Mode) on a serial printer (connected to the system via a 4100SM serial interface module).

Printer Configurations

- Printer must be configured as follows:
 - 8 data bits, no parity, 1 stop bit
 - 300 or 1200 baud (1200 preferred)
 - Hardware handshaking using DTR signal
- The 4100SM module package includes a 3m RS232 cable. You can use a longer cable or an extension cable if the Control and serial printer are separated by more than 3m. The total cable length should be less than 15m.
- Most printers either ignore the CTS, DSR and CD signals, or require them to be high (i.e. 3-15VDC as measured on RS232 DB25 connector pins 5, 6 & 8 respectively with respect to ground pin 7). The 4100SM module sets these pins high. If the printer does not operate with these pins high, then clip the blue (CTS), white (DSR) or red (CD) jumpers on the 4100SM module to set the corresponding signal floating. Important pins on the RS232C cable are pin 3 (data out), pin 7 (ground) and pin 20 (DTR - ready).

- The DTR signal, as measured at 4100SM TB1, should be high (9.5-14VDC) when the printer is powered, properly connected, on-line and ready to print. This signal will be low (0-1.5VDC) when the printer is not powered, not properly connected, off-line or out of paper. The Control will not send data to the printer unless the DTR signal is high.

Installing the 4100SM and the Printer

1. Mount the 4100SM using its clip bracket to attach it to the side wall of the control cabinet.
2. Make connections between J8, the 4100SM module and the serial printer as shown below. Connector J8, is located above connector J7 on the right side of the main PC board, and also provides triggers for powerline carrier devices.

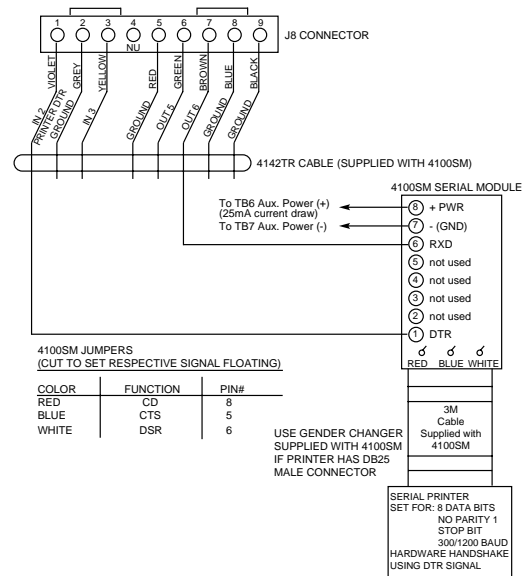


Figure 3-26. Event Log Printer Connections

Installing the 4286 Vista Interactive Phone (VIP) Module

The 4286 VIP Module is an add-on accessory that permits the user to access the security system and relays via a TouchTone (DTMF multifrequency) phone (either from the premises or by calling the premises from a remote location). This module must be enabled in the #93 Device Programming Mode as device address 4, and must be assigned to a partition.



Only one VIP Module can be used in a security system and partition assignment is done via #93 Menu Mode-Device Programming.

The 4286 VIP Module enables the user to do the following via a DTMF multi-frequency telephone:

- Receive synthesized voice messages over the phone regarding the status of the security system.
- Arm and disarm the security system and perform most other commands using the telephone keypad.

- Control 4204 relays and/or Powerline Carrier devices using the #70 relay mode.
- Provides voice annunciation over the phone to confirm any command that is entered.

Facts You Need to Know

- The VIP Module can announce many of the same words that would normally be displayed on a keypad under the same system conditions (see the words in **bold** in the Alpha Vocabulary list found in **SECTION 6: #93 Menu Mode Programming**). If the VIP module cannot annunciate a word in a zone descriptor, it will not annunciate the descriptor at all, but will still annunciate the zone number.
- Remote access to the VIP Module can be toggled on and off by using the [Security Code] + # 91 command (see VIP Module instruction manual). You must use the master or installer code only.

- The 4286 is wired between the control panel and the premises handset(s). It listens for multifrequency (DTMF) tones on the phone line and reports them to the control panel.
- During on-premises phone access, it powers the premises phones; during off-premises phone access, it seizes the line from the premises phones and any answering machines.
- The VIP Module reports trouble as zone 804 (800 + ECP device address 04 = 804) if data communication with the control is lost.
- Detailed operating instructions for phone access to the security system are provided with the VIP Module. In addition, a *Phone Access User's Guide* is supplied with the VIP Module for the user of the system.

Mounting and Wiring the 4286 VIP Module

The VIP Module may be mounted in the control cabinet if space is available, or on the side of the cabinet or adjacent to it. Pry off the VIP Module's cover to wire.

1. When the VIP Module is mounted inside the control cabinet, attach it to the cabinet's interior surface with double sided adhesive tape. You may leave the module's cover off if it is mounted within the cabinet.



Do not mount the VIP Module on the cabinet door or attempt to attach it to the PC board.

2. When mounting the VIP Module outside the cabinet, use the screw holes at the rear to mount horizontally or vertically (double sided adhesive tape may be used, if preferred). You can bring wires out from the side or back (a round breakout is also available on the back).
3. Affix the 4286 connections label (supplied separately) to the inside of the VIP Module's cover if the cover is used. Otherwise, affix the label to the inside of the *control cabinet's* door.
4. Make 12V (+) and (-) and data in and data out connections from the VIP Module to the control, using the connector cable supplied with the VIP Module (see below). These are the same connections as for remote keypads.

RED	6 (AUX +)
BLACK	7 (AUX -)
GREEN	8 (DATA IN)
YELLOW	9 (DATA OUT)

5. Insert the keyed connector at the other end into the mating header on the VIP Module.
6. Connect terminals 1 through 5 on the VIP Module as shown in *Figure 3-27*.



You must use an RJ31X jack (CA38A in Canada) with a direct-connect cord and make all connections **exactly** as shown. If the leads on the direct-connect cord are too short to reach their assigned terminals, splice additional wires to them, as required.

Terminal Block Connections

4286 Terminal	Connects to:
1. Phone In (Tip)	Terminal (26) on control.
2. Phone In (Ring)	Terminal (27) on control.
3. Phone Out (Tip)	BROWN lead from direct-connect cord.
4. Phone Out (Ring)	GREY lead from direct-connect cord.
5. Ground	Earth ground terminal (30) on control.
6. Audio Out 1	Speaker
7. Audio Out 1	Speaker

4286 WIRING NOTES:

- If multifrequency (DTMF) tones are not present following phone access to the security system *via an on-premises phone*, try reversing the pair of wires connected to terminals 3 & 4 on the 4286, **and** the pair of wires connected to terminals 26 & 27 on the control.
- Connection to the incoming Telco line via a RJ31X (CA38A) jack and direct-connect cord, as shown in this *Figure 3-27*, is essential, even if the system is not connected to a central station. **The 4286 will not function if this is not done.**
- The house phone lines must be connected to the VIP Module terminals **only!** If they are connected directly to the control panel or to the incoming line, an error tone will be heard when trying to access the VIP Module from an on-premises phone.
- If the telephone system on the premises includes a Caller ID unit, connect the unit directly to the "Handset" terminals (26 and 27) on the control.

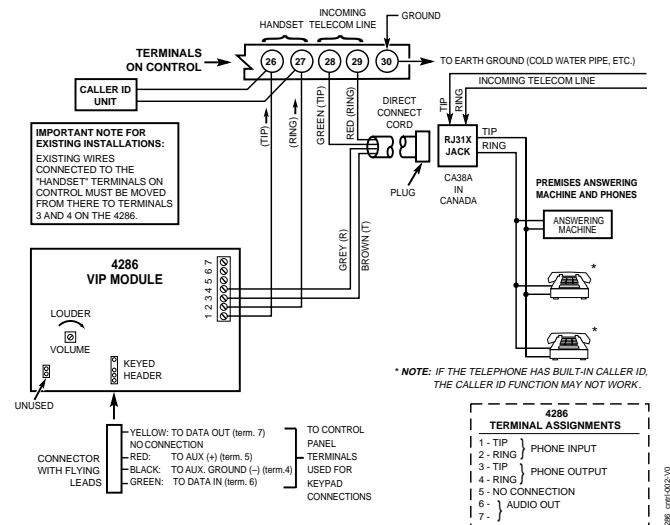


Figure 3-27. 4286 VIP Module Connections

Installing the Audio Alarm Verification (AAV)

An Audio Alarm Verification (AAV) module (also known as two-way voice), such as the Eagle 1250, is an add-on accessory that permits voice dialogue between an operator at a central station and a person at the alarm installation, for the purpose of alarm verification. This feature is supported only if alarm reports are programmed for transmission to the primary phone number.

When using the AAV, zone 5 must be assigned a zone response type (e.g. response type 10), and option 1*60 and 1*66 must be selected as 1 to silence sounders on the premises. If these fields are not enabled, conversation with the premises will be difficult (too much noise on the premises).

Note that zone 5 is no longer available as a protection zone

AAV Module Operation

After all messages have been sent during a reporting session to the primary phone number, the control will trigger the AAV if at least one of the messages was an alarm report. If Contact ID format is selected for the primary phone number, and the cancel report field *81 is programmed as non-zero, the control will send a "listen-in to follow" message (event code 606), which signals the 685 (rev. 4.6 or higher) to hold the phone connection open for 1 minute.

Once triggering occurs, the control will give-up the phone line to the AAV module, without breaking the connection with the central station. During the time the AAV is active, all sirens and all continuous keypad sounds in all partitions will be shut off if fields 1*60 and 1*66 are enabled. When the AAV indicates that the audio alarm verification session is completed, all keypad sounds will be restored. Sirens will be restored if the alarm timeout period has not expired.

As part of its fail-safe software, the control will limit all audio alarm verification sessions to 15 minutes (this is

because once the session begins, the AAV module controls the duration). If a new fire alarm should occur during a session, the control will break phone connection and send the new fire alarm report, then re-trigger AAV mode. All other dialler messages triggered during on-going conversation will be held until either the AAV module signals that it is inactive, or the 15 minute timeout occurs.

One way to trigger the AAV module is by selecting option 3 in field 1*46 and make connections as shown in *Figure 3-28*. Field 1*46 can be used to set ground start, remote console sounding, or long range radio open/close trigger. If any one of these functions are absolutely necessary in a given installation, the alternative AAV trigger method is via the use of a 4204 relay as shown in *Figure 3-29*. If this method is selected, the start and stop conditions for that relay must be set to choice 60 = "Audio Alarm Verification" during relay programming, via #93 menu mode.

Some AAV modules allow remote triggering by ring detection at the alarm installation. Please be advised that if this option is selected, it may defeat modem download and 4286 VIP module remote access capability. The DIP switch settings shown on the triggering diagrams disable the remote AAV module trigger option. The control also requires that the AAV module trigger type is falling edge, which is set using the 1250's DIP switches.

1. 685 Receiver software must be rev. 4.6 or higher. Earlier versions will not hold the phone line connection open.
2. Contact ID code for "listen-in to follow" is "606." Contact ID is the only reporting format that will send a "listen-in-to-follow."

Audio Alarm Verification Module Connections

Connect the Audio Alarm Verification module's falling edge trigger input to J7 connector trigger output, or to a 4204 relay module, as shown in the various AAV Connection diagrams.



If also using a 4286 VIP Module, be sure to follow *Figure 3-30* when making connections.

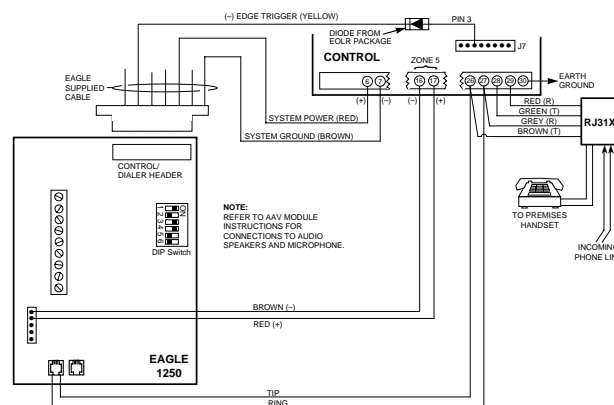


Figure 3-28. AAV Connections to Control Alone

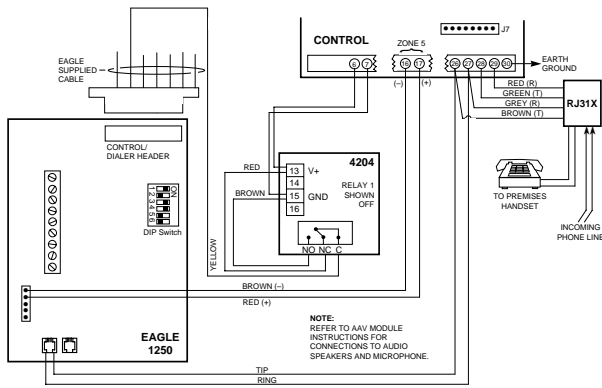


Figure 3-29. AAV Connections With a 4204

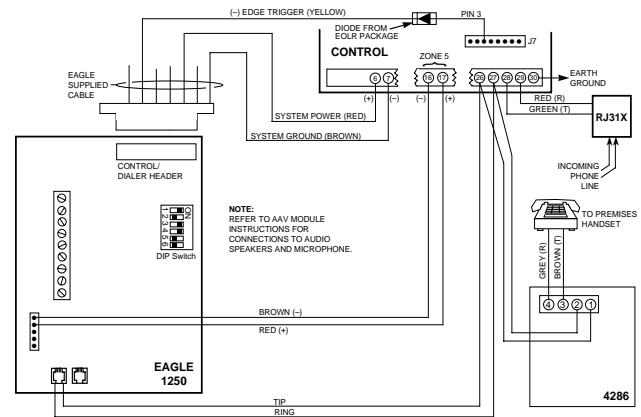


Figure 3-30. AAV Connections With a 4286

Video Alarm Verification (VAV)

This section provides only general information about the VAV option. Detailed information is in the manual provided with the VAV Transmitter.

A Video Alarm Verification (VAV) transmitter (e.g. VTP-50/Transpac receiver) is an add-on accessory that permits video imagery of the area where an alarm was detected to be transmitted on standard switched network telephone lines to the monitoring location using the same phone line and phone call on which the alarm is digitally communicated to the monitoring location.

The VAV transmitter connects to the control's handset telephone line (via a modem) and connects to 2 relays on a 4204 Relay Module: a "kissoff" relay, which signals the VTP-50 to begin communication, and a "hold the line" relay, which holds the phone line for 6 seconds to allow time for the VTP-50 to make connection to the Transpac receiver. In addition, a "camera" relay for each camera is used to trigger the cameras connected to the VTP-50.

VAV Operation

After all messages have been sent to the primary phone number during a reporting session, the control will transmit the VAV report (609) to a 685 (revision 4.73 or higher), which prepares the Transpac receiver to receive images. The "kissoff" relay activates, causing the VTP-50 to begin communication with the Transpac receiver, and the "hold the line" relay activates, giving the VTP-50 time to make connection to the Transpac receiver without breaking connection with the central station. The video image of the areas covered by the zones in the "camera" relay zone list is then transmitted to the Transpac receiver.

New alarms will automatically disconnect the video transmission and will be reported to the central station. **(Connection diagram is for reference only. Refer to the instructions accompanying the video transmitter being used for actual connections.)**

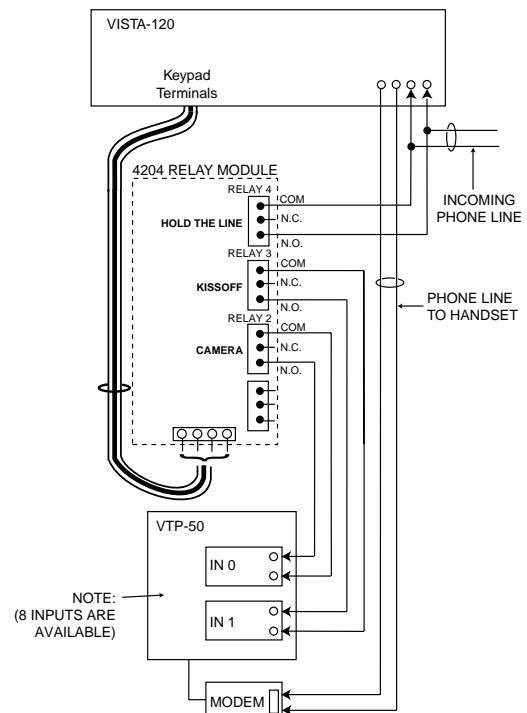


Figure 3-31. Connections To The Video Transmitter

Access Control (via ADEMCO PassPoint ACS)

The VISTA-120 interfaces with the PassPoint ACS via the VISTA Gateway Module (PTVGM). The PTVGM is connected between the ECP bus (keypad terminals) of the control and the network bus of the PassPoint ACS. The control sends the PTVGM its status information, event log entries, and entry/exit requests (inputs

programmed with response type Access Point) from keypads, hardwired zones, and RF transmitters. The PTVGM then reformats and retransmits this information to the Main Logic Board, (MLB) on the PassPoint ACS network bus.

Wiring the Vista Gateway Module

The Vista Gateway Module is connected between the ECP bus, (Vista-120 keypad terminals) and the network bus of the PassPoint Access Control System. See *Figure 3-32* for the proper wiring connections:

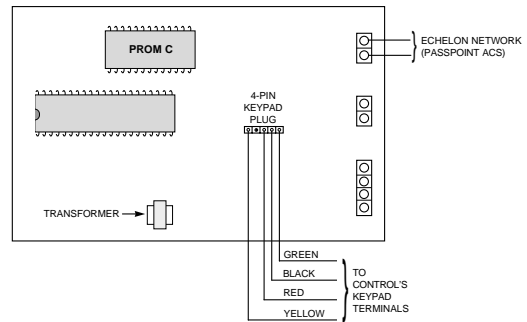


Figure 3-32. Wiring the Vista Gateway Module

Connecting the AC Mains Transformer

This product uses the 1361 Transformer. If you are using powerline carrier devices, use the 4300 Transformer. In Australia, use the XF10 and in Europe, use the XM10E in addition to the normal 16.5VAC/40VA output transformer.

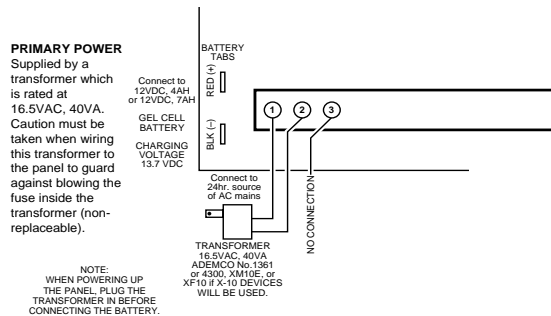


Figure 3-33. AC Power And Battery Connections

Wiring the 1361 Transformer

Wire a 1361 110VAC Transformer (not supplied) to terminals 1 and 2 on the control panel as shown in *Figure 3-33*. In 220VAC regions, use a 16.5VAC/40VA output transformer.

Wiring the 4300/XF10 Transformers

Wire the 4300 Transformer as follows:

1. Connect terminals 1 and 3 (AC) and terminal 2 (Ground) of the 4300 transformer interface to control panel terminals 1, 2, and 30, respectively, see *Figure 3-34*.
2. Run a 6-conductor cable between the 4300 and the panel. Splice this cable to a 4142TR cable as shown below. Note that the white and yellow wires of the 4142TR **must be spliced together**.

In Australia, use the XF10 and in Europe, use the XM10E in addition to the normal 16.5VAC/40VA output transformer. See *Figure 3-35*.

X-10 Powerline Carrier devices are either plugged into standard AC outlets or wired into the AC electrical system by a licensed electrician, depending on the type of device used. They respond to "on" and "off" commands sent from the panel, through the 4300/XF10/XM10E, to the receiving devices.

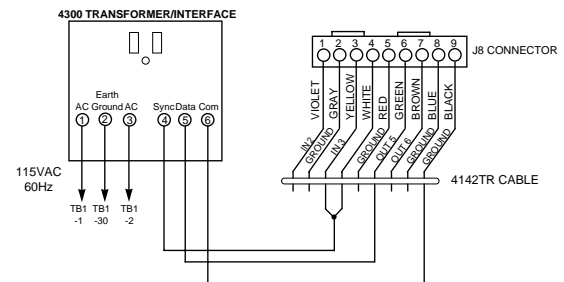


Figure 3-34. 4300 Transformer Connections

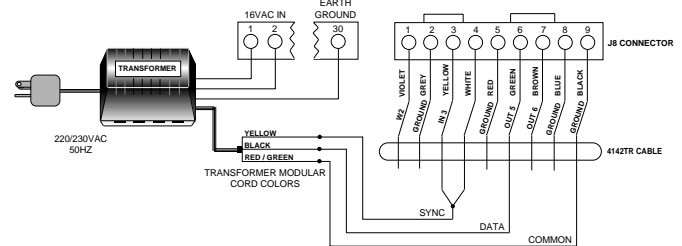


Figure 3-35. XF10 Transformer Connections

Earth Ground Connections

In order for the lightning transient protective devices in this product to be effective, the designated earth ground terminal (terminal 30), must be terminated in a good earth ground. We recommend using 1.3mm diameter copper wire run at a maximum length of 7.5m. The following are examples of good earth grounds available at most installations:

- **Metal Cold Water Pipe:** Use a non-corrosive metal strap (copper is recommended) firmly secured to the pipe to which the ground lead is electrically connected and secured.
- **AC Power Outlet Ground:** Available from 3-prong power outlets only. To test the integrity of the ground terminal, use a three-wire circuit tester with neon lamp indicators.

Calculating the Battery Size Needed

In the event of an AC power loss, the Control panel will still operate for a period of time (time period varies depending on size of battery used) because the control has a back-up, rechargeable (sealed) lead acid battery. ADEMCO 467 (12V, 4AH) and ADEMCO 712BNP 12V, 7AH batteries are recommended.

The standby battery is automatically tested every 4 minutes for 13 seconds (or every 50 seconds for 1.5 seconds, as a function of programme selection) and every 24 hours for 10 minutes, beginning 24 hours after exiting programming mode.

In addition, entry into the test mode will cause a battery test to be initiated. A "SYSTEM LOBAT" indication will display if the battery voltage is low (less than approx. 11.5VDC).

Use the following worksheets to calculate the total current draw on the control panel.

1. In Table 1, enter devices used on the polling loop. Calculate total current draw on the polling loop.

Table 1: Total Polling Loop Current Draw

Polling Loop Device	Current	# of Units	Total
Polling Loop Subtotal (terminals 24 & 25 – 128mA) *			

*The total current cannot exceed 128mA. If total load exceeds 128mA, then a 4297 Loop Extender Module can be used. This module is powered from the panel's auxiliary power, and provides a separate polling loop output, which can support an additional 128mA load.

2. In Table 2, enter devices used on Auxiliary Power. Calculate standby and alarm currents, then add to get Auxiliary Power current subtotal.

Table 2: Auxiliary Power Current Load

Device Model #	Device Current X # of Units	Total Current	
		Standby	Alarm
Auxiliary Power Subtotal (terminals 6 & 7 – 750mA max.)			

3. In Table 3, enter the total calculated subtotals of all listed outputs from Tables 1 and 2, then add to get the combined current.

Table 3: Total VISTA-120 Standby Current Drain

	Total Standby Current	
Polling Loop Subtotal (see Table 1)		
Aux. Power Subtotal (see Table 2)		
Total Current Drain		

Use the following formula to determine the battery size needed:

[Total Current Drain (Amps)] X [Number of Hours Standby Needed] = [Battery Ampere Hours].

Example: If the total current drain is 550mA (.55 Amps), and 24 Hr. standby is needed: $0.55 \times 24 = 13.2$ Ampere/Hour battery. In this example, two 7 Amp/Hr batteries connected in parallel must be used.

Installing The Back-Up Battery

1. Place the 12-volt back-up battery in the control cabinet.
2. Connect the Red battery wire to the positive (+) battery terminal **on the control board**.
3. Connect the Black wire to the negative (–) battery terminal **on the control board**.

NOTE: If two batteries are required, use the dual battery harness (supplied).

Programming

Programme Modes

There are two programming modes for the VISTA-120. These are the Data Field Programme Mode and the #93 Menu Mode. The Data Field Programme Mode is where many system options are programmed. The #93 Menu Mode is an interactive mode that requires a 2-line alpha keypad.



Local keypad programming can be disabled through Compass downloading software. If this is done, Programme mode can only be accessed via the downloading software.



The factory-loaded defaults (*97) enable keypad addresses 00-01 only. A keypad set to one of these addresses must be used to programme the system initially.

Entering and Exiting Programming Mode

Enter Programming mode using either method a or b:

- Press both the [*] and [#] keys at the same time within 30 seconds after power is applied to the control.
- Enter the **Installer Code** + [8] + [0] + [0] + [0] keys. The factory installer code can be changed once in the Programme mode (field *00).

NOTE: The default for the Installer Code is 4140.

Exit the Programming mode by either method a or b:

- Press [*] + [9] + [8]. Exiting by this method prevents the installer code from being used to re-enter Programming mode. Only method “a” can be used to re-enter Programming mode.
- Press [*] + [9] + [9]. Exiting by this method permits the installer code to be being used to re-enter Programming mode.

Data Field Programming Mode

In the Data Field Programme Mode you may access any field simply by entering either [*] or [#] + the field number:

- To write or change information in a field press [*] + the field number (*03).
- To read the information in a field press [#] + the field number (#03).

When the entries for a field are completed, the keypad beeps three times and advances to the next field.

SUMMARY OF DATA FIELD PROGRAMMING COMMANDS

*91	Select partition for programming partition-specific fields
*92	Display the software revision level of the control panel
*93	Enter Menu mode programming
*94	Go to next page of fields
*99	Go back to previous page of fields or exit Programming Mode with no installer code lockout
*98	Exit Programming Mode with Installer Code lockout

Moving from One Page of Programming to Another

The data fields are grouped into three levels (referred to as “pages”). The first page is accessed as soon as Programming Mode is entered.

The second and third pages of data fields are indicated at the keypad by a 1 and 2, respectively, in front of the 2-digit field address. “ALT PROGRAM MODE” is displayed along with a “100” or “200,” indicating which page of programme fields is accessed.

To access the next level of programming fields, perform the following steps:

- Press *94.
- Press [*] + [XX], where XX = the last two digits of the programme field, and make the desired entry.

NOTES:

Press *94 to move to 2nd page, (fields 1*01 - 1*76); press *99 to move back to 1st page.

Press *94 to move to 3rd page (fields 2*00 - 2*88); press *99 to move back to 2nd page

Entry Errors

- If an address is improperly entered, the keypad displays “FC.”
- If a programme entry is improperly entered (for example, a larger number than is permitted), the keypad display will go blank.

In either of the above cases, simply re-enter [*] + the correct field number and then enter the correct data.

Programming System-Wide Data Fields

Values for some programming fields are system-wide (global), and some can be different for each partition (partition-specific).



The partition-specific programming fields are automatically skipped when programming the global fields. If the system has only 1 partition, the partition-specific fields *are not* automatically skipped.

To programme system-wide data fields, perform the following steps:

- 1 Enter Programme Mode: **Installer Code + 8 0 0 0**.

The following display appears:

Program Mode *Fill # View – 00

- 2 If the control has not been programmed before, enter *97 to load factory defaults.
- 3 Press [*] and enter the first field number to be programmed (for example, *00, Installers Code). Make the desired entry. When the field is complete, the keypad beeps three times and advances to the next field. If you do not want to change the next field, press [*] and enter the next field number to be programmed.

First Page of fields (*00 - *90)

To change to the next page of fields, press *94. To return to the previous page of fields, press *99.

- 4 Press *99 or *98 to exit Programme Mode.

NOTE: If the number of digits that you enter in a data field is fewer than the maximum permitted (for example, a phone number), the keypad displays the last entry and waits. To proceed, enter [*] + the next data field you wish to programme.

Programming Partition-Specific Data Fields

To programme partition-specific data fields once in Programme Mode, do the following:

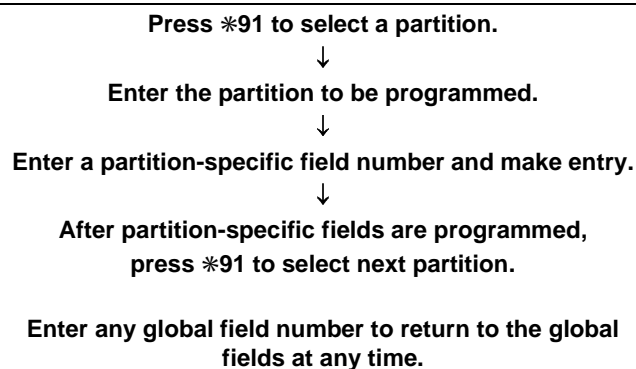
- 1 Enter Programme Mode: **Installer Code + 8 0 0 0**.
- 2 Press *91, which will prompt you for the partition number desired.
- 3 Enter a partition-specific field number (e.g., *09) to begin programming.

When the first field's entry is completed, the next partition-specific field is automatically displayed. When all partition-specific fields are programmed, the system returns to the global programming fields (page 1 fields).

- 4 Repeat this procedure for each partition in the installation.

NOTE: To return to the global programme fields before finishing all fields, enter any global field number.

Programming Partition-Specific Fields



#93 Menu Mode Programming

The #93 Menu Mode is an interactive mode through which much of the system's programming is done. In this mode, there are “question and answer” prompts that can be accessed once Data Field Programme Mode has been entered. These prompts require a 2-line alpha keypad.

After programming all system-related programming fields in the usual way, press #93 while still in programming mode to display the first choice of the menu-driven programming functions. Press 0 (NO) or 1 (YES) in response to the displayed menu selection. Pressing 0 will display the next choice in sequence.

Below is a list of the main menu selections.

MAIN MENU	OPTIONS
ZONE PROG? 1 = YES 0 = NO 0	For programming the following: <ul style="list-style-type: none"> • Zone Number • Zone Response Type • Partition Number for Zone • Dialler report code for zone • Input Device Type for zone (whether RF, polling loop, etc.) • Enrolling serial numbers of 5800 Series transmitters & serial polling loop devices into the system.
SEQUENTIAL LEARN? 1 = YES 0 = NO 0	Same as Zone Programming except: <ul style="list-style-type: none"> • Input Device Type for Zone (RF, polling loop, etc.). • Enrolling serial numbers of 5800 Series transmitters & serial polling loop devices into the system.
REPORT CODE PROG? 1 = YES 0 = NO 0	For programming the following: <ul style="list-style-type: none"> • Alarm report codes for zones • Restore and supervisory codes • All other system report codes
ALPHA PROG? 1 = YES 0 = NO 0	For entering alpha descriptors for the following: <ul style="list-style-type: none"> • Zone Descriptors • Installer's Message • Custom Words • Partition Descriptors • Relay Descriptors
DEVICE PROG? 1 = YES 0 = NO 0	For defining the following device characteristics for addressable devices, including keypads, RF receivers (5881/5882EU), 4204 relay modules, 4286 VIP Module, and VISTA Gateway Module: <ul style="list-style-type: none"> • Device Address • Device Type • Keypad Options (including Partition assignment) • RF House ID
RELAY PROG? 1 = YES 0 = NO 0	For defining output device functions.
RLY VOICE DESCR? 1 = YES 0 = NO 0	For entering voice descriptors for relays to be used with the 4286/4286 VIP Module.
CUSTOM INDEX ? 1 = YES 0 = NO 0	For creating custom word substitutes for VIP Module annunciation.
CLEAR RF SERIAL 1 = YES 0 = NO 0	For deleting all RF serial numbers presently in the system.

Following is a list of commands used while in the Menu Mode:

#93 Menu Mode Programming Commands

#93	Enters Menu Mode.
[*]	Serves as [ENTER] key. Press to have keypad accept entry.
[#]	Backs up to previous screen.
0	Press to answer NO.
1	Press to answer YES.
00, or 000+[*]	Quits the Menu Mode and goes back into Data Field Programming Mode, if entered at the first prompt of each main menu option.

Zone Index

The VISTA-120 has 128 physical zones, as well as supervisory zones for relays, ECP devices (devices which communicate through the keypad terminals), and system troubles.

The zones are designated as follows:

Zone	Function
1	2-wire Smoke Detectors (if used)
5	Audio Alarm Verification (if used)
7	Keyswitch (if used)
8	Latching-Type Glassbreak Detectors (if used)
1-9	Traditional Hardwired Zones
1-128	5800 Series Wireless Devices
10-128	Polling Loop Devices
995	* + 1 Panic
996	# + 3 Panic
999	* + # Panic

ZONE No.	ZONE FUNCTION	ACTUAL ZONE
001 - 128	Protection zones	As indicated
601 – 696	Relay Supervisory Zones	6 + 2-digit relay number (e.g. relay number 03, if supervised, is zone 603)
800 - 830	ECP Device Supervisory Zones	8 + 2-digit Device Address, e.g., Device Address 01, if supervised, is zone 801. The 4286 VIP module is zone 804 (since its Device Address must be set to 4).
900 - 990 & 997	System Supervisory Zones	988: 2nd Wireless Receiver - not receiving signals 990: 1st Wireless Receiver - not receiving signals 997: Polling Loop overload
995, 996, 999	Keypad Panics	995: 1+T panic (A key) 996: 3 + # panic (C key) 999: T + # panic (B key)

Zone Defaults

Following are the zone type defaults for zones on the VISTA-120:

Zone No.	Zone Type	Zone No.	Zone Type
001	09	010–128	00
002	09	601–632	05
003	03	800–831	00
004	03	988	00
005	03	990	00
006	03	995	00
007	03	996	00
008	03	997	19
009	00	999	06

Communication Programming Guide

Field #	Low Speed	Contact ID	High Speed	Express
*46, *48	Choose transmission speed and frequency	No effect	No effect	No effect
*52, *53	Send as either 4+2 or expanded	No effect	No effect	No effect
*79, *80	Enables alarm restores	Enables alarm restores	Enables alarm restores	Enables alarm restores
*49	Add checksum digit	No effect	Add checksum digit	No effect
*50	Sescoa/Radionics. Selects fixed digit time instead of fixed interdigit.	No effect	No effect	No effect

NOTE: Low Speed will **not** send 3+2 messages. Zone ID digit is suppressed.

Loading Communication Defaults

To help expedite the installation, the system provides 4 different communication defaults (Low Speed, Ademco Express, Ademco High Speed & Ademco's Contact ID). These defaults automatically programme industry-standard code assignments for zones, keypad panics, non-alarm and supervisory conditions, and can be loaded at any time without affecting non-communication programme fields.

You may load communications defaults at any time. However, it is recommended that the panel be defaulted first (*97) **only if no other programming has been done**. If other programming has already been done, there is no need to default the panel.

To load communication defaults, do the following:

Enter programme mode [Installer Code] + 8 0 0 0. Once the Programming mode is entered, first press *94 and then enter one of the following field numbers:

Low Speed Defaults (*94*80)

- Selects low speed, standard format, with no checksum, for both phone numbers.
- Assigns the following alarm report codes:
- 03 for zones 002-047, 056-128
- 01 for zones 001 & 048-055 (fire zones)
- 02 for zones 062, 063 (panic trans), & 995, 996, 999 (keypad panics)
- 09 for all alarm restores
- Enables all zone type restores.
- For "expanded" reporting, enable fields *52 and *53.

*45 PRIMARY FORMAT [0] Low Speed

*46 LOW SPEED FORMAT (Primary) [0] Ademco

*47 SECONDARY FORMAT [0] Low Speed

Table of Default Programming Commands

Press	To Load This Default Programme Set
*80	Low Speed communication defaults
*81	Ademco 4 + 2 Express communication defaults
*82	Ademco High Speed communication defaults
*83	Contact ID communication defaults

*48 LOW SPEED FORMAT (Sec.) [0] Ademco

*49 CHECKSUM VERIFICATION [0] [0]
No checksum Primary Secondary

*50 SESCOA/RADIONICS SELECT [0] Radionics

*51 DUAL REPORTING [0] no

*52 STANDARD/EXPANDED REPORT FOR PRIMARY

[0] [0] [0] [0] [0] [0] standard
Alarm Rstr Bypass Trbl Opn/Cls Low Bat

*53 STANDARD/EXPANDED REPORT FOR SECONDARY

[0] [0] [0] [0] [0] [0] standard
Alarm Rstr Bypass Trbl Opn/Cls Low Bat

ADEMCO Express Defaults (*94*81)

- Selects Ademco Express reporting format, with checksum, for both phone numbers.
- Report codes for zones 1-99, RF receiver, and keypad panics are sent as their respective zone ID numbers (01-86, 88-91, 95-99), Duress is sent as "DD". Alarm restore is "E" + 2nd digit.
- Enables all zone type restores.

*45 PRIMARY FORMAT [3] Ademco Express

*46 LOW SPEED FORMAT (Primary) [0]

*47 SECONDARY FORMAT [3] Ademco Express

*48 LOW SPEED FORMAT (Sec.) [0]

*49 CHECKSUM VERIFICATION [0] [0]

No checksum Primary Secondary

*50 SESCOA/RADIONICS SELECT [0] Radionics

*51 DUAL REPORTING [0] no

*52 STANDARD/EXPANDED REPORT FOR PRIMARY

[0] [0] [0] [0] [0] [0] standard
Alarm Rstr Bypass Trbl Opn/Cls Low Bat

*53 STANDARD/EXPANDED REPORT FOR SECONDARY

[0] [0] [0] [0] [0] [0] standard
Alarm Rstr Bypass Trbl Opn/Cls Low Bat

ADEMCO High Speed Defaults (*94*82)

- Selects Ademco High Speed format, with no checksum, for both phone numbers.
- Zone reporting is assigned to channels.
- Enables all zone type restores.
- Enables Duress to be sent.

*45 PRIMARY FORMAT [2] Ademco High Speed

*46 LOW SPEED FORMAT (Primary) [0]

*47 SECONDARY FORMAT [2] Ademco High Speed

*48 LOW SPEED FORMAT (Sec.) [0]

*49 CHECKSUM VERIFICATION [0] [0]
No checksum Primary Secondary

*50 SESCOA/RADIONICS SELECT [0] Radionics

*51 DUAL REPORTING [0] no

*52 STANDARD/EXPANDED REPORT FOR PRIMARY

[0] [0] [0] [0] [0] [0] standard
Alarm Rstr Bypass Trbl Opn/Cls Low Bat

*53 STANDARD/EXPANDED REPORT FOR SECONDARY

[0] [0] [0] [0] [0] [0] standard
Alarm Rstr Bypass Trbl Opn/Cls Low Bat

ADEMCO Contact ID Defaults (*94*83)

- Selects Contact ID format for both phone numbers.
- Reporting is enabled for all zones.
- Enables all zone type restores.
- Refer to *SECTION 8: System Communication* for event code definitions.

*45	PRIMARY FORMAT	[1]	Ademco Contact ID
*46	LOW SPEED FORMAT (Primary)	[0]	
*47	SECONDARY FORMAT	[1]	Ademco Contact ID
*48	LOW SPEED FORMAT (Sec.)	[0]	
*49	CHECKSUM VERIFICATION	[0]	[0]
	No checksum	Primary	Secondary

*50	SESCOA/RADIONICS SELECT					[0]	Radionics
*51	DUAL REPORTING					[0]	no
*52	STANDARD/EXPANDED REPORT FOR PRIMARY						
	[0]	[0]	[0]	[0]	[0]	[0]	standard
	Alarm	Rstr	Bypass	Trbl	Opn/Cls	Low Bat	
*53	STANDARD/EXPANDED REPORT FOR SECONDARY						
	[0]	[0]	[0]	[0]	[0]	[0]	standard
	Alarm	Rstr	Bypass	Trbl	Opn/Cls	Low Bat	

Communication Defaults For Zones

To programme report codes, see *Report Code Programming* in *SECTION 6: #93 Menu Mode Programming*.

Zone #	Low Speed		Express		High Speed		Contact ID	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
001	01	00	10	01	01	00	01	00
002	01	00	10	02	01	00	02	00
003	03	00	10	03	02	00	03	00
004	03	00	10	04	02	00	04	00
005	03	00	10	05	02	00	05	00
006	03	00	10	06	02	00	06	00
007	03	00	10	07	02	00	07	00
008	03	00	10	08	02	00	08	00
009	03	00	10	09	03	00	09	00
010	03	00	01	10	03	00	10	00
011	03	00	01	01	03	00	11	00
012	03	00	01	02	03	00	12	00
013	03	00	01	03	03	00	13	00
014	03	00	01	04	03	00	14	00
015	03	00	01	05	03	00	15	00
016	03	00	01	06	03	00	01	00
017	03	00	01	07	04	00	02	00
018	03	00	01	08	04	00	03	00
019	03	00	01	09	04	00	04	00
020	03	00	02	10	04	00	05	00
021	03	00	02	01	04	00	06	00
022	03	00	02	02	04	00	07	00
023	03	00	02	03	04	00	08	00
024	03	00	02	04	04	00	09	00
025	03	00	02	05	04	00	10	00
026	03	00	02	06	04	00	11	00
027	03	00	02	07	04	00	12	00
028	03	00	02	08	04	00	13	00
029	03	00	02	09	04	00	14	00
030	03	00	03	10	04	00	15	00
031	03	00	03	01	04	00	01	00

Zone #	Low Speed		Express		High Speed		Contact ID	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
032	03	00	03	02	05	00	02	00
033	03	00	03	03	05	00	03	00
034	03	00	03	04	05	00	04	00
035	03	00	03	05	05	00	05	00
036	03	00	03	06	05	00	06	00
037	03	00	03	07	05	00	07	00
038	03	00	03	08	05	00	08	00
039	03	00	03	09	05	00	09	00
040	03	00	04	10	05	00	10	00
041	03	00	04	01	05	00	11	00
042	03	00	04	02	05	00	12	00
043	03	00	04	03	05	00	13	00
044	03	00	04	04	05	00	14	00
045	03	00	04	05	05	00	15	00
046	03	00	04	06	05	00	01	00
047	03	00	04	07	05	00	02	00
048	01	00	04	08	01	00	03	00
049	01	00	04	09	01	00	04	00
050	01	00	05	10	01	00	05	00
051	01	00	05	01	01	00	06	00
052	01	00	05	02	01	00	07	00
053	01	00	05	03	01	00	08	00
054	01	00	05	04	01	00	09	00
055	01	00	05	05	01	00	10	00
056	03	00	05	06	06	00	11	00
057	03	00	05	07	06	00	12	00
058	03	00	05	08	06	00	13	00
059	03	00	05	09	06	00	14	00
060	03	00	06	10	06	00	15	00
061	03	00	06	01	06	00	01	00
062	02	00	06	02	09	00	02	00

Zone #	Low Speed		Express		High Speed		Contact ID	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
063	02	00	06	03	09	00	03	00
064	03	00	06	04	06	00	04	00
065	03	00	06	05	14	00	05	00
066	03	00	06	06	14	00	06	00
067	03	00	06	07	14	00	07	00
068	03	00	06	08	14	00	08	00
069	03	00	06	09	14	00	09	00
070	03	00	07	10	14	00	10	00
071	03	00	07	01	14	00	11	00
072	03	00	07	02	14	00	12	00
073	03	00	07	03	15	00	13	00
074	03	00	07	04	15	00	14	00
075	03	00	07	05	15	00	15	00
076	03	00	07	06	15	00	01	00
077	03	00	07	07	15	00	02	00
078	03	00	07	08	15	00	03	00
079	03	00	07	09	15	00	04	00
080	03	00	08	10	15	00	05	00
081	03	00	08	01	13	00	06	00
082	03	00	08	02	13	00	07	00
083	03	00	08	03	13	00	08	00
084	03	00	08	04	13	00	09	00
085	03	00	08	05	13	00	10	00
086	03	00	08	06	13	00	11	00
087	03	00	08	07	13	00	12	00
088	03	00	08	08	13	00	13	00
089	03	00	08	09	13	00	14	00
090	03	00	09	10	13	00	15	00
091	03	00	09	01	13	00	01	00
092	03	00	09	02	13	00	02	00
093	03	00	09	03	13	00	03	00
094	03	00	09	04	13	00	04	00
095	03	00	09	05	13	00	05	00
096	03	00	09	06	13	00	06	00
097	03	00	09	07	13	00	07	00
098	03	00	09	08	13	00	08	00
099	03	00	09	09	13	00	09	00
100	03	00	10	10	13	00	10	00
101	03	00	10	01	13	00	11	00
102	03	00	10	02	13	00	12	00
103	03	00	10	03	13	00	13	00
104	03	00	10	04	13	00	14	00
105	03	00	10	05	13	00	15	00
106	03	00	10	06	13	00	01	00
107	03	00	10	07	13	00	02	00

Zone #	Low Speed		Express		High Speed		Contact ID	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
108	03	00	10	08	13	00	03	00
109	03	00	10	09	13	00	04	00
110	03	00	11	10	13	00	05	00
111	03	00	11	01	13	00	06	00
112	03	00	11	02	13	00	07	00
113	03	00	11	03	13	00	08	00
114	03	00	11	04	13	00	09	00
115	03	00	11	05	13	00	10	00
116	03	00	11	06	13	00	11	00
117	03	00	11	07	13	00	12	00
118	03	00	11	08	13	00	13	00
119	03	00	11	09	13	00	14	00
120	03	00	12	10	13	00	15	00
121	03	00	12	01	13	00	01	00
122	03	00	12	02	13	00	02	00
123	03	00	12	03	13	00	03	00
124	03	00	12	04	13	00	04	00
125	03	00	12	05	13	00	05	00
126	03	00	12	06	13	00	06	00
127	03	00	12	07	13	00	07	00
128	03	00	12	08	13	00	08	00
601	00	00	00	00	00	00	00	00
602	00	00	00	00	00	00	00	00
603	00	00	00	00	00	00	00	00
604	00	00	00	00	00	00	00	00
605	00	00	00	00	00	00	00	00
606	00	00	00	00	00	00	00	00
607	00	00	00	00	00	00	00	00
608	00	00	00	00	00	00	00	00
609	00	00	00	00	00	00	00	00
610	00	00	00	00	00	00	00	00
611	00	00	00	00	00	00	00	00
612	00	00	00	00	00	00	00	00
613	00	00	00	00	00	00	00	00
614	00	00	00	00	00	00	00	00
615	00	00	00	00	00	00	00	00
616	00	00	00	00	00	00	00	00
800	00	00	00	00	00	00	00	00
801	00	00	00	00	00	00	00	00
802	00	00	00	00	00	00	00	00
803	00	00	00	00	00	00	00	00
804	00	00	00	00	00	00	00	00
805	00	00	00	00	00	00	00	00
806	00	00	00	00	00	00	00	00
807	00	00	00	00	00	00	00	00

Zone #	Low Speed		Express		High Speed		Contact ID	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
808	00	00	00	00	00	00	00	00
809	00	00	00	00	00	00	00	00
810	00	00	00	00	00	00	00	00
811	00	00	00	00	00	00	00	00
812	00	00	00	00	00	00	00	00
813	00	00	00	00	00	00	00	00
814	00	00	00	00	00	00	00	00
815	00	00	00	00	00	00	00	00
816	00	00	00	00	00	00	00	00
817	00	00	00	00	00	00	00	00
818	00	00	00	00	00	00	00	00
819	00	00	00	00	00	00	00	00
820	00	00	00	00	00	00	00	00
821	00	00	00	00	00	00	00	00
822	00	00	00	00	00	00	00	00
823	00	00	00	00	00	00	00	00
824	00	00	00	00	00	00	00	00
825	00	00	00	00	00	00	00	00
826	00	00	00	00	00	00	00	00

Zone #	Low Speed		Express		High Speed		Contact ID	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
827	00	00	00	00	00	00	00	00
828	00	00	00	00	00	00	00	00
829	00	00	00	00	00	00	00	00
830	00	00	00	00	00	00	00	00
831	00	00	00	00	00	00	00	00
988	07	00	08	08	07	00	09	00
990	07	00	09	00	08	00	10	00
995	02	00	09	05	10	00	04	00
996	02	00	09	06	11	00	05	00
997	07	00	09	07	07	00	12	00
999	02	00	09	09	12	00	06	00
Alm Rst	09	00	14	00	01	00	01	00
Tble	05	00	15	00	01	00	01	00
Tble Rst	09	00	14	00	01	00	01	00
Byb	00	00	00	00	00	00	00	00
Byb Rst	00	00	00	00	00	00	00	00
Duress	02	00	13	13	01	00	11	00

Zone Response Type Definitions

Each zone must be assigned a zone type, which defines the way in which the system responds to faults in that zone. There are three keypad-activated zones (panic keys; see note) for each partition, a polling loop supervision zone, and four RF supervisory zones, two for each RF receiver. Zone types are defined below.

Type 00: Zone Not Used

Programme with this zone type if the zone is not used.

Type 01: Entry/Exit #1 Burglary

Provides entry delay whenever the zone is faulted and the system is armed in the AWAY or STAY mode. When the panel is armed in the INSTANT or MAXIMUM mode, no entry delay is provided. Exit delay begins whenever the control is armed, regardless of the arming mode selected. These delays are programmable.

Assign this zone type to zones that are used for primary entry to and exit from the facility.

Type 02: Entry/Exit #2 Burglary

Provides a secondary entry delay whenever the zone is faulted and the system is armed in the AWAY and STAY modes. When the panel is armed in the INSTANT or MAXIMUM mode, no entry delay is provided. Secondary exit delay begins whenever the control is armed, regardless of the arming mode selected. These delays are programmable.

Assign this zone type to zones that are used for entry and exit of the facility and require more time than the primary entry and exit point. Delay times for this zone type must be greater than those for zone type 01 (e.g., a garage, loading dock, or basement door).

Type 03: Perimeter Burglary

Provides an instant alarm if the zone is faulted and the system is armed in the AWAY, STAY, INSTANT, or MAXIMUM mode.

Assign this zone type to all exterior door and window zones.

Type 04: Interior, Follower

Provides a delayed alarm (using the programmed entry delay time) if an entry/exit zone is faulted first.

Otherwise, it produces an instant alarm. It is active when the system is armed AWAY or MAXIMUM, but the MAXIMUM mode eliminates the entry delay.

Interior Follower zone is automatically bypassed when the panel is armed in the STAY or INSTANT mode.

Assign this zone type to a zone covering an area such as a foyer, lobby, or hallway through which one must pass upon entry or exit (to and from the keypad).

Type 05: Trouble by Day/Alarm by Night

Provides an instant alarm if the zone is faulted and the system is armed in the AWAY, STAY, INSTANT, or MAXIMUM mode. During the disarmed state (day), the system annunciates a latched trouble sounding from the keypad (and a central station report, if desired). There are programming options to prohibit bypass of this zone type except by installer and to prohibit restoration of the system (or partition) to the disarmed, ready to arm state subsequent to a trouble or alarm condition related to this zone type, except by the installer.

Assign this zone type to a zone that contains a foil-protected door or window (such as in a store), or to a zone covering a sensitive area such as a stock room or drug supply room. It can also be used on a zone in an area where immediate notification of an entry is desired.

Type 06: 24-Hour Silent Alarm

Sends a report to the central station but provides no keypad display or sounding. Assign this zone type to a zone containing an Emergency button.

Type 07: 24-Hour Audible Alarm

Sends a report to the central station and provides an alarm sound at the keypad and an audible external alarm. Assign this zone type to a zone containing an Emergency button.

Type 08: 24-Hour Auxiliary Alarm

Sends a report to central station and provides an alarm sound at the keypad only. **(No bell/siren output is provided.)** Assign this zone type to a zone an Emergency button or one containing monitoring devices such as water sensors or temperature sensors.

Type 09: Supervised Fire. (No Verification)

Provides a fire alarm on a short circuit and a trouble condition on open circuit. A fire alarm produces a pulsing of the bell/siren output. A zone of this type is always active and cannot be bypassed. **This zone type can be assigned to any wired zone except zone 9, and can be assigned to certain wireless system zones.**

Type 10: Interior with Delay.

Provides entry and exit delays (using the programmed entry and exit delay times) when armed in the AWAY mode. Provides only exit delay when armed in the MAXIMUM mode (no entry delay). Delay begins whenever sensors in this zone are violated, regardless of whether or not an entry/exit delay zone was tripped first.

The Interior with Delay zone is automatically bypassed when the panel is armed in the STAY or INSTANT mode.

Assign this zone type to a zone covering an area such as a foyer, lobby, or hallway through which one must pass upon entry or exit (to and from the keypad).

Type 19: 24 Hour Trouble

An open or short on a zone with this zone type causes a trouble response. No external alarm sounders are activated.

Type 20: Arm-STAY*

Causes the system to arm in the STAY mode when the zone is activated.

Type 21: Arm-AWAY*

Causes the system to arm in the AWAY mode when the zone is activated.

Type 22: Disarm*

Causes the system to disarm when the zone is activated.

Type 23: No Alarm Response

Used on a zone when an output relay action is desired, but with no accompanying alarm (e.g., for lobby door access).

Type 27: Access Point

Assign this zone type to an input device (hardwired zone, wireless zone, keypad, access control relay, etc.) that controls an access entry point (e.g., a door). The access point entry relay can be assigned to an access control relay (controlled by the VISTA-120), ECP relay (4204), or to the access control system independent of the VISTA-120.

Type 28: Main Logic Board (MLB) Supervision

Used to supervise the MLB. If communication between the MLB and the VISTA Gateway Module (PTVGM) fails, a trouble condition is annunciated for the zone. Also, if the communication fails, all access control system (ACS) input zones also display a "CHECK."

NOTE FOR PANIC KEYS: Keypad panic zones share the same zone response type for all 8 partitions, but panics may be individually enabled for each partition.

IMPORTANT! FAULT ANNUNCIATION

Polling loop and RF troubles (zones 988, 990 & 997) will report as trouble conditions only, and should be assigned zone type 05 if annunciation is desired.

Zone Input Type Definitions

Each zone must be assigned an input type, which defines the where the system will "look" for status of the zone (RF receiver, polling loop, etc.). Zone input types are defined below.

Type 00 Not Used

Programme with this input type if the zone is not used.

Type 01 Hardwired (HW)

This input type is reserved for the built-in hardwired zones 1-9.

Type 03 Supervised RF (RF)

Select for 5800 Series RF transmitters that will be supervised for check-in signals. The transmitter must remain within the receiver's range.

Type 04 Unsupervised RF (UR)

Select for 5800 Series RF transmitters that will not be supervised for check-in signals. The transmitter may therefore be carried off-premises.

Type 05 Unsupervised Button RF (BR)

Select for 5800 Series RF transmitters specifically designed for this input type. These transmitters send only fault signals. They do not send low-battery signals until they are activated. The transmitter may be carried off-premises.

Type 06 Serial Number Polling Loop (SL)

Select for polling loop devices with a built-in serial number.

Type 07 DIP Switch Loop (DP)

Select for polling loop devices that use DIP switches for programming the zone number of the device.

Type 08 Second Loop Polling Loop (DS)

Select for the second loop of two-zone polling loop devices (e.g., 4190WH; 4278EX).

Type 09 Console Input (CS)

Select when this zone is to be controlled by a keypad input (user code + [#] + [7] + [3]) for access control.

Type 10 PassPoint Access Control (ACS)

Select when this zone is mapped to a zone on the PassPoint Access Control System.

Programming Access Control of an Entry/Exit Point

The control can send entry and exit requests to the PassPoint ACS utilising keypads, wired zones, and RF transmitters. A zone is programmed with a response type 27, (Access Point) and an appropriate input type.

Using the Alpha Keypad

There are three entries that can be entered at the keypad to provide access to a door.

- Code + #73 (unlocks door for time programmed in ACS software)
 - Code + #74 (prompts for specific point to be unlocked)
 - Code + #75 (prompts for specific point and function)
- This requires the PTVGM and the PassPoint ACS. The functions available are Grant, Protect or Bypass.

Grant temporarily unlocks a door to force an access. Protect unlocks the door only when a valid access is received. Bypass permanently unlocks the door to allow continuous access. To programme the alpha keypad for access control, perform the following steps:

1. Enter *ZONE PROGRAMMING* in the #93 Menu Mode.
2. Programme the zone with a response type 27 (Access Point).
3. Enter the access point number (00-31) of the door and indicate whether this is an entry or exit keypad.
4. Enter the partition number.
5. Enter the input type as Keypad Input (09)
6. Enter the keypad ecp address.

See *SECTION 6: #93 Menu Mode Programming* for a detailed explanation.

Using an RF Transmitter Zone

An RF button type transmitter (5804/5804EU), can be used to provide access to or egress from up to 4 doors. One button will control one door. Also a button can be used to provide access or egress due to a panic or duress condition.

An RF transmitter (5816/5816EU) can be used with a remote switch to provide an exit in case of a fire alarm. The PIR (5890/5888EU) can be used to provide exit while preventing entry through a door.

The smoke detector (5808/5808EU), can be used to provide egress in emergency situations. To programme the RF transmitter for access control, perform the following steps:

1. Enter *ZONE PROGRAMMING* in the #93 Menu Mode.
2. Programme the zone with a response type 27 (Access Point).
3. Enter the access point number (00-31) of the door.
4. Enter whether RF device is for entry or exit.
5. Enter the partition number
6. Enter the input type supervised RF (03), unsupervised RF (04), or button RF (05).
7. Enter the loop number
8. Enroll the serial number.

See *SECTION 6: #93 Menu Mode Programming* for a detailed explanation.

RF buttons and pendants must be assigned to a user number in order to function. See *SECTION 11: Security Access Codes* for the procedure.

Using Wireless Keypads

The wireless keypads (5827 & 5827BD) can provide another way of entering or exiting the premise. They function the same as the alpha keypads, except when the code + # 73 is entered. This entry will momentarily allow access to ALL access points in the partition to which the keypad is assigned Enter the partition to which the keypad is assigned in field 1*48.

Using ACS Zone Inputs

If the PassPoint ACS has uncommitted zones, these may be used by the Vista-120 as wired zones. To programme to use the ACS zone inputs, perform the following steps:

1. Enter *ZONE PROGRAMMING* in the #93 Menu Mode.
2. Programme this zone as any other zone and indicate the input type as ACS (10).
3. Enter the PassPoint ACS's zone ID (00-31).

See *SECTION 6: #93 Menu Mode Programming* for a detailed explanation.

Control of Lighting and Appliances

Lighting and appliances can be controlled when an access or exit event occurs. Lights or appliances can be automatically turned on or off when a valid entry or egress request is presented at an access point. The Vista-120 relays or the ACS relays or triggers would be used with keypads and/or RF transmitters whose response type is Access Point (27) to control these devices.

1. Enter *RELAY PROGRAMMING* in the #93 Menu Mode.
2. Programme all the information for the relay
3. Select relay type, ECP (1) for the 4204 and X10 (2). See *SECTION 6: #93 Menu Mode Programming* for a detailed explanation.

Access Control Dialler Events

All PassPoint ACS events can be sent to the Vista-120's dialler via the PTVGM. These events will also be logged into the control's event log. This is enabled in the PassPoint ACS. See the *PassPoint ACS documentation* for a detailed explanation.

Programming the Vista Gateway Module

Set the PTVGM's ecp address by running the ACSTERM, which configures the PassPoint ACS. See the *PassPoint ACS documentation* for a detailed explanation.

1. Enter "M" (menu mode), and then an 8-digit user code.
2. Select (1<ENTER>),
3. Configure the access system
4. Enter programme mode (1<ENTER>).
5. Select configure modules (3<ENTER>)
6. Go to the module number that the PTVGM is located at on the Echelon Bus of the PassPoint ACS. This screen will have arbitrary dialler information displayed. Ignore this screen.
7. Enter (<CTRL>Z). This screen contains the PTVGM ecp address entry.
8. Enter the desired ecp address. This address must match the address programmed in the *DEVICE PROGRAMMING*

Programming for the Video Alarm Verification

Program the 4204 relays as follows:

<p>Device Type = 4 Relay Type = 1 (ECP) ECP Address = (module's device address) Relay Number = (actual relay number used on the module)</p> <p>Relay "A" (kisssoff): action = 1 (closed for 2 seconds) start zone type = 60 (alarm verification) stop zone type = 60 (alarm verification)</p> <p>Relay "B" (hold the line): action = 2 (stay closed) start zone type = 60 (alarm verification) stop zone type = 57 (yyy seconds set in field 1*75; set to 6 sec.)</p> <p>Relay "C" (camera): action = 1 (closed for 2 seconds) start event = 1 (alarm) start zone list = "n" (zone list number containing camera zones for this relay)</p>	<p>Data Field Programming</p> <p>*30 = (TouchTone dialing) *33 = primary phone number *41 = 0 (use EOLR) *45 = 1 (Contact ID) *81 = enable cancel reports in order to send verification code (9th entry) *84 = 00 (intermittent sensor disabled) 1*66 = 0 (disable silence of sounders during video alarm verification operation) 1*67 = 1 (must also be selected to assure that Contact ID report Event 609 will be transmitted to the monitoring location after the alarm transmission.) 1*75 = 006 (6 seconds)</p> <p>NOTE: A zone list must be programmed which contains all zones protected by the camera being triggered by the "camera" relay.</p>
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Data Field Descriptions

About Data Field Programming

The following pages list this control's data fields in numerical order. Field numbers are listed in the left column, followed by a "Title and Data Entries" column, which lists the valid entries for each field. Experienced installers can simply follow this column when programming the data fields. The "Explanation" column provides explanatory information and special notes where applicable.

NOTE: Refer to the *Programming Guide* for the default values. They are not listed in this section.



Use the *Programming Guide* to record the data for this installation.


Programming Data Fields

Data field programming involves making the appropriate entries for each of the data fields. Start Data Field programming by entering the installer code + 8 + 0 + 0 + 0.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
*00	Installer Code Enter 4 digits, 0-9	The Installer Code is a 4-digit code reserved for installation company use. This is the only code that can be used to enter the Programme Mode from the keypad. This code cannot be used to disarm the system if it isn't used to arm the system. This code cannot be used to re-enter Programme Mode if Programme Mode is exited by the *98 command.
*01	Installer Code Restriction 0 = disable 1 = enable	If enabled, the Master Code keying opens a 15-second time window in which the Installer Code can be used (Norwegian requirement).
*03	Final Contact Set (partition-specific) 0 = disable 1 = enable	If enabled, the exit delay will be infinitely long and the system will arm 5 seconds after the Zone Type 01 exit door opens and closes or closes if already open and that condition was allowed prior to arming.
*04	Auto-bypass Exit Route Faults (partition-specific) 0 = disable 1 = enable	If enabled, auto-bypass of unsealed burglary zones after 2 nd attempt to arm within 15 seconds after arming is rejected and the open zones are displayed (Swedish Requirement).
*05	Arm with Low Battery 0 = disable (ANPI requirement) 1 = enable	If enabled, the user can arm the partition or system with a system low battery present.
*06	Zone Type 5 Always Alarm 0 = disable 1 = enable	If enabled, a fault of a type 5 zone (tamper) causes a full alarm in any arming mode (disarmed or armed). If disabled, a fault of a type 5 zone (tamper) causes a trouble in the disarmed state and a full alarm in any armed state.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
*07	Allow Arming With Faults in Exit Route 0 = disable 1 = enable	If enabled, allows arming with zone faults present in any of the exit route zones (zone types 1, 2, 4, and 10), wherein a fault remaining in any of these zone types at the end of the exit delay will result in a burglary alarm. (For STAY/INSTANT arming, this applies to zone types 1 and 2 only.) Automatic bypass of the zones is achieved (instead of alarm) if field 1*20 is also enabled.
*08	Self Activating Siren Output 0 = disable 1 = enable	If enabled, the alarm output is normally activated and turns off during alarms (ANPI requirement). If disabled the alarm output is normally off and turns on during alarms.
*09	Entry Delay #1 (partition-specific) Enter 02-15 multiplied by 15 seconds. 00 = no delay.	Entry delay defines the delay time that allows users to re-enter the premises through a door that has been programmed as an entry delay door and disarm the system without sounding an alarm. The system must be disarmed within this period or an alarm will occur.
*10	Exit Delay #1 (partition-specific) Enter 03-15 multiplied by 15 seconds. 00 = no delay.	Exit delay defines the delay period that allows users to leave the premises through a door that has been programmed as an entry/exit delay door after arming the system without setting off the alarm.
*11	Entry Delay #2 (partition-specific) Enter 02-15 multiplied by 15 seconds. 00 = no delay.	Entry Delay #2 is used for a secondary door requiring a longer delay than those assigned to Entry Delay #1.
*12	Exit Delay #2 (partition-specific) Enter 03-15 multiplied by 15 seconds. 00 = no delay.	Exit Delay #2 is used for a secondary door requiring a longer delay than those assigned to Exit Delay #1.
*13	Sounder Timeout (partition-specific) Enter 01-15 multiplied by 2 minutes. 00 = no timeout.	Defines the length of time the external sounder and the keypad's sounder will sound for all audible alarms. The timeout can be overridden by the Fire Timeout Disable option (field *21) for fire alarms.
*14	Zone 9 Response Time 0 = normal response (350msec) 1 = fast response (10msec)	If set for fast response, reacts to fast response devices connected to zone 9.
*15	Keyswitch Assignment Enter 1-8 partition keyswitch is being used. Enter 0 if the keyswitch is not used.	The keyswitch requires the use of zone 7 wired loop (zone 7 is no longer available as protection zone). The fire and panic alarm voltage triggers (J7) automatically become ARMING and READY status outputs for the Keyswitch LEDs. Zone type 10 is automatically assigned to zone 7 if a keyswitch is used. Openings/closing report as user "0" if enabled in field *40.
*16	Confirmation of Arming Ding (partition-specific) 0 = disable 1 = enable	If enabled, produces ½-second external alarm sounding ("ding") at the end of exit delay (or after kiss-off from the central station, if sending closing reports).
*17	AC Mains Loss Keypad Sounding 0 = disable 1 = enable	If enabled, sounding at the keypad (rapid beeping) occurs when AC power is lost (sounding occurs about 2 minutes after actual AC loss).
*18	Mains Presence Display 0 = disable 1 = enable	If enabled, displays AC presence (AC) in lower right-hand corner of keypad display.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
*19	Randomise AC Mains Loss Report 0 = disable 1 = enable	If enabled, randomises AC loss reporting between 30 and 60 minutes after an actual AC loss. If disabled, AC loss reporting about 2 minutes after actual AC loss. Selecting this option helps prevent an overload of AC loss messages at the central station during a community blackout.
*20	Telephone Module Phone Code 1-9 = first digit of access code * or # = second digit of access code (enter # +11 for "*", or # +12 for "#") To disable enter 00 for the 1 st digit	If a 4286 Voice Module is being used, enter the 2-digit phone code used to access the system.
*21	Prevent Fire Timeout 0 = disable (timeout) 1 = enable (no timeout)	If enabled, there is no timeout of the alarm sounder duration for all fire zones, regardless of partition, so that fire sounding continues until the system is reset. If disabled, (timeout) the normal burglary sounder duration (field *13) applies to fire alarms.
*22	Keypad Panic Enables (partition-specific) 0 = disable 1 = enable	If enabled, the keypad panics (zones 995, 996, and 999) may be used in this partition. There are 3 entries in this field, one for each panic.
*23	Multiple Alarms (partition-specific) 0 = disable 1 = enable	If enabled, allows more than one alarm sounding for a given zone during an armed period. NOTE: that multiple alarm soundings will not occur more frequently than allowed by the programmed alarm sounder duration. This has no impact on the number of communication messages transmitted.
*24	Ignore Expansion Zone Tamper 0 = disable (tamper detection) 1 = enable (no tamper detection)	If disabled, the system monitors the tampers on expansion zones. NOTE: Only applicable to certain polling loop sensors with tamper switches or 5800 Series transmitters.
*25	Burglary Trigger for Response Type 8 0 = disable 1 = enable	If enabled, allows triggering of the voltage output on Pin 3 of the J7 header to include zone response type 8 (24-hr. auxiliary).
*26	Intelligent Test Report 0 = disable 1 = enable	If enabled, no test report is sent if any other type of report was sent since the last test report. If disabled, test reports are sent at the set intervals, regardless of whether or not any other report has been sent.
*27	Test Report Interval Enter 0001-9999 for the test report interval in hours. Enter 0000 for test reporting.	If a test report is desired, enter a test code in field *81 and *82. Set first test report time in field *83.
*28	Power-Up in Previous State 0 = disable 1 = enable	If enabled, the system, upon power-up, reverts to its status prior to a complete power loss. If disabled, the system always powers up in a disarmed state. NOTE: Neither authority level 0 nor 5 can be used to disarm the system if the control powers up armed.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
*29	Quick Arm (partition-specific) 0 = disable 1 = enable	If enabled, allows arming of the burglary system in AWAY, STAY, INSTANT, or MAXIMUM mode by using the [#] key instead of the user code. When armed, the system reports closing as User 0 if Open/Close reporting for User #2 (typically a Master level user) was enabled for a given partition. If Quick Arm is used, the Installer Code and Authority Level 5 codes cannot disarm the system.
*30	Multifrequency or Pulse Dial 0 = pulse 1 = multifrequency	Select the dialing method for the system
 If you select multifrequency, make sure the subscriber has requested and is paying for multifrequency service. Note that whether or not multifrequency dialing for call placement is permitted, communication by the use of DTMF signaling (ADEMCO High Speed, 4 + 2 Express, ADEMCO Contact ID) will still take place. See field 1*33 for Multifrequency w/pulse dial backup		
*31	PABX Access Code Enter 00-09; B-F (11-15)	This field is used to enter up to four 2-digit numbers representing the prefix needed to obtain an outside telco line. If not required, enter nothing and proceed to next field.
*32	Primary Subscriber's Account Number (partition-specific) Enter 00-09; B-F (11-15)	Enter a 3- or 4-digit (depending on report format) primary subscriber account number. Each number requires a 2-digit entry so as to allow entry of hexadecimal digits (B-F). If a 3-digit account number is to be used, enter data only in the first 3 locations, and enter * in the fourth location.
*33	Primary Phone Number Enter 0-9; #11 for *, #12 for #, #13 for a 2-second pause.	Enter the primary central station phone number, up to 17 digits. This is the phone number the control will use to transmit Alarm and status messages to the central station. Do not fill unused spaces. NOTE: Backup reporting is automatic only if a secondary phone number is entered.
*34	Secondary Phone Number Enter 0-9; #11 for *, #12 for #, #13 for a 2-second pause.	Enter the secondary phone number, up to 17 digits. The secondary phone number is used if communication on the primary number is unsuccessful, or if split/dual reporting is desired. Do not fill unused spaces. NOTE: If this field is programmed, a secondary subscriber account number (field *90) <i>must</i> also be programmed.
*35	Download Phone Number Enter 0-9; #11 for *, #12 for #, #13 for a 2-second pause.	Enter the downloading phone number, up to 17 digits. Do not fill unused spaces. NOTE: This field is applicable only if downloading is utilized.
*36	Download ID Number Make entries as 2-digit numbers as follows: 00=0 01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=A 11=B 12=C 13=D 14=E 15=F	Enter eight digits. NOTE: This field is applicable only if downloading is utilized.
37	Download Command Enables 0 = disable 1 = enable	Enabling a function means that you are able to perform that function via the ADEMCO Compass Downloading software. Functions are as follows: Dialler Shutdown; System Shutdown; Restrict Access; Remote Bypass; Remote Disarm; Remote Arm; Upload Program; Download Program. *Restrict download access when the system is armed: can only arm unarmed partitions, upload programme/event log, command relays and request status.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
*38	Prevent Zone XXX Bypass (partition-specific) Enter a zone number (001-128). Enter 000 if all zones can be bypassed.	Enter three digits for zone that cannot be bypassed by the user. This selection does not affect fire zones, which the system prevents from being bypassed.
*39	Enable Open/Close Report for Installer Code (partition-specific) 0 = disable 1 = enable	If enabled, whenever the Installer Code is used to arm or disarm the partition, an open/close report is sent to the central station.
*40	Enable Open/Close Report for Keyswitch 0 = disable 1 = enable	If enabled, whenever the keyswitch is used to arm or disarm the partition, an open/close report is sent to the central station.
*41	Normally Closed or EOLR (Zones 2-8) 0 = EOLR used 1 = normally closed	If 0 , end-of-line resistors must be used on zones 2-8. If 1 end-of-line resistors cannot be used and only normally closed devices must be used.
*42	Suppress Fire Relay 0 = disable 1 = enable	If enabled, the system does not activate 4204/Powerline Carrier Device for fire alarms.
*43	Suppress Wireless Siren Activation for Fire Alarms 0 = disable 1 = enable	If enabled, the system does not activate wireless siren for fire alarms.
*44	Ring Detection Count Enter 00 to disable ring detection. Enter 01-14 for ring counts of 1-14. Enter 15 to select Answering Machine Defeat Mode	Only applicable if using a 4286 VIP Module and/or if remote-initiated downloading will be used. NOTES: Do not enter 00 if a 4286 is installed. In the Answering Machine Mode, the caller should let the phone ring once, then hang up, and call again within 30 seconds. The system, upon hearing one ring followed by nothing, does not answer the first call, but readies itself to pick up on the first ring of the next incoming call that is received within 30 seconds (i.e., the downloader calling again).
*45	Primary Format 0 =Low Speed; 1 =Contact ID; 2 =ADEMCO High Speed; 3 =ADEMCO Express	Enter the reporting format for the primary telephone number.
*46	Low Speed Format (Primary) 0 = ADEMCO Low Speed 1 = SESCOA/Radionics	Enter the low speed format for the primary telephone number.
*47	Secondary Format 0 =Low Speed; 1 =Contact ID; 2 =ADEMCO High Speed; 3 =ADEMCO Express	Enter the reporting format for the secondary telephone number.
*48	Low Speed Format (Secondary) 0 = ADEMCO Low Speed 1 = SESCOA/Radionics	Enter the low speed format for the secondary telephone number.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
*49	Checksum Verification Enter 2 digits, one for the primary and one for the secondary. 0 = disable 1 = enable	If enabled, the system for either or both primary/secondary formats sends a verification digit to validate the message at the receiver without having to send two message rounds. Selection is valid for 3+1, 4+1, and 4+2 reports.
*50	Sescoa/Radionics Select 0 = disable 1 = enable	If disabled, selects Radionics, which uses hexadecimal 0-9, B-F reporting. If enabled, selects Sescoa, which uses only numeric reporting (0-9). NOTE: The selection applies to both primary and secondary phone numbers.
*51	Dual Reporting 0 = disable 1 = enable	If enabled, all reports are to be sent to both primary and secondary phone numbers. NOTE: If used with Split Reporting option 1 (1*34), alarms go to both primary and secondary numbers, while all other reports go to secondary only. If used with Split Reporting option 2, alarms go to both lines, open/close and test messages go to secondary only, while all other reports go to primary.
*52	Standard/Expanded Reporting Primary 0 = disable 1 = enable	This field has six entries as follows: Alarm, Restore, Bypass, Trouble, Open/Close, Low Battery. If enabled, expanded reports are sent to the primary phone number if low speed format is selected in field *45. NOTE: Expanded overrides 4+2 format.
*53	Standard/Expanded Reporting Secondary 0 = disable 1 = enable	This field has six entries as follows: Alarm, Restore, Bypass, Trouble, Open/Close, Low Battery. If enabled, expanded reports are sent to the secondary phone number if low speed format is selected in field *45. NOTE: Expanded overrides 4+2 format.
*54	Maximum Number of Dialler Attempts Enter (1-8).	Enter the number of attempts the dialler will attempt to communicate messages to the central station.
*55	Telephone System Selection 00 = Latin America, Spain, Italy, Eastern Europe, China 01 = Australia 02 = Belgium 03 = Denmark 04 = Finland 05 = France 06 = Netherlands 07 = Norway 08 = Sweden	Enter the telephone system for the dialler. NOTE: selections 01 – 07 require special hardware configuration.
*56	Contact ID Data on Keypad Bus for Alternative Communications Media Reporting Instead of Digicom 0 = disable 1 = enable	
*57	Contact ID Data on Keypad Bus for Back-up Alternative Communications Media Reporting if Digicom Fails 0 = disable 1 = enable	

FIELD	TITLE and DATA ENTRIES	EXPLANATION
*58	Selection of Contact ID Message Data on Keypad Bus for Subscriber ID #1 0 = disable 1 = enable	Select which Contact ID messages will be transmitted on the Keypad bus for subscriber #1. The messages are as follows: Alarms, Troubles, Bypasses, Open/Close, System Conditions, Test Reports.
*59	Selection of Contact ID Message Data on Keypad Bus for Subscriber ID #2 0 = disable 1 = enable	Select which Contact ID messages will be transmitted on the Keypad bus for subscriber #2. The messages are as follows: Alarms, Troubles, Bypasses, Open/Close, System Conditions, Test Reports.
*60	Verified Alarm Report Enable 0 = disable 1 = enable	If enabled, a special Contact ID report is transmitted if 2 burglary alarms are detected within 45 minutes (Swedish requirement).
*61	Robofon Version of Contact ID 0 = disable 1 = enable	If enabled, the system uses Robofon version of Contact ID (Swedish requirement).
*79	Zone Type Restores for Zone Types 1-8 0 = disable 1 = enable	This field has eight entries, one for each zone type. Select the zone types that will send Restore reports.
*80	Zone Type Restores for Zone Types 9 and 10 0 = disable 1 = enable	This field has two entries, one for each zone type. Select the zone types that will send Restore reports.
*83	First Test Report Time Enter 00-07 the for day (01 = Monday) Enter 00-23 for the hour Enter 00-59 for the minutes	Enter the day and time that the first Test report shall be transmitted. Enter 00 in all locations if the Test report is to be sent immediately upon exiting. Enter 00 in the day location if the report is to be sent at the next occurrence of the time that is set.
*84	Intermittent Sensor Suppression (partition-specific) Enter 01-15. Enter 00 for unlimited reports	This option limits the number of messages (alarms or troubles) sent for a specific channel in an armed period.
*85	Enable Dialer Reports for Panics & Duress (partition-specific) 0 = disable 1 = enable	This field has four entries as follows: Zone 995, 996, 999, Duress Enable for each partition that the panics and duress reporting is desired.
*86	Report/Log Zone Type 23 0 = disable 1 = enable	If enabled, faults of zone type 23 are communicated and logged in the event log.
*87	Entry Warning (partition-specific) 0 = 3 short beeps 1 = slow continuous beeps	Select the type of warning for the entry delay period.
*88	Burglary Alarm Communicator Delay (partition-specific) 0 = no delay 1 = 16-second delay	Select the delay, if any, for burglary alarm communications.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
*89	Restore Report Timing 0 = instant 1 = after siren timeout 2 = when system is disarmed	Select the time when restore reports are sent after an alarm.
*90	Secondary Subscriber Account Number (partition-specific) Enter 00-09; B-F (11-15)	Enter a 3- or 4-digit (depending on report format) primary subscriber account number. Each number requires a 2-digit entry so as to allow entry of hexadecimal digits (B-F). If a 3-digit account number is to be used, enter data only in the first 3 locations, and enter * in the fourth location. NOTE: This field <i>must</i> be programmed if a secondary phone number is used (field *34). This account number can be the same as the primary account number.
1*00	Contact ID Reporting in ASCII Through Printer Port 0 = disable 1 = enable	If enabled, the system sends messages via the printer port for event log printing.
1*01	ASCII Contact ID Reporting with or without ACK 0 = ACK required 1 = ACK not required	If you are using the printer port for printing of the event log, select if the ACK signal is required.
1*02	ASCII Contact ID Baud Rate 0 = 1200 1 = 2400 1 = 4800	Select the baud rate of the data on the printer port.
1*05	Bypass Enable for Fire Zones 0 = disable 1 = enable	If enabled, the system allows the bypassing of fire zones.
1*06	Suppress All Keypad Displays When System is Armed 0 = disable 1 = enable	If enabled, the system suppresses the displays of all keypads while the system is armed.
1*07	Check or TBLE Display 0 = CHECK 1 = TRBL	Select whether the system should display TRBL or CHECK for trouble conditions.
1*08	Suppress Use of Armed LED on Keypads 0 = disable 1 = enable	If enabled, the system suppresses the armed LED when the system is in the armed state. This is for countries where the Red is only for indicating alarm.
1*09	Suppress Keypad Arming Status Indications When System is Armed 0 = disable 1 = enable	If enabled, the system suppresses all arming status indications when the system is armed.
1*10	Fire Display Lock 0 = scroll alarms 1 = lock display	If lock display is selected, the system displays of first fire alarm and requires the user to press the [*] key for a display of each additional fire alarm. Otherwise, the system automatically scrolls all fire alarms.
1*11	Common Area 1 Partition Enter 1-8 0 = none	Enter the common area 1 partition.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
1*12	Affects Common Area 1 (partition-specific) 0 = disable 1 = enable	If enabled, causes common area 1 to disarm when this partition disarms. NOTE: This partition must be armed before common area 1 can be armed.
1*13	Arms Common Area 1 (partition-specific) 0 = disable 1 = enable	If enabled, arming this partition causes the system to attempt to arm common area 1 automatically. To enable this field, field 1*12 must also be enabled (partition-specific). NOTE: Common area 1 cannot be armed unless all partitions programmed for "affect" (field 1*12) are already armed.
1*14	Common Area 2 Partition Enter 1-8 0 = none	Enter the common area 2 partition.
1*15	Affects Common Area 2 (partition-specific) 0 = disable 1 = enable	If enabled, causes common area 2 to disarm when this partition disarms. NOTE: This partition must be armed before common area 2 can be armed.
1*16	Arms Common Area 2 (partition-specific) 0 = disable 1 = enable	If enabled, arming this partition causes the system to attempt to arm common area 2 automatically. To enable this field, field 1*15 must also be enabled (partition-specific). NOTE: Common area 2 cannot be armed unless all partitions programmed for "affect" (field 1*15) are already armed.
1*17	Common Area 3 Partition Enter 1-8 0 = none	Enter the common area 3 partition.
1*18	Affects Common Area 3 (partition-specific) 0 = disable 1 = enable	If enabled, causes common area 3 to disarm when this partition disarms. NOTE: This partition must be armed before common area 3 can be armed.
1*19	Arms Common Area 3 (partition-specific) 0 = disable 1 = enable	If enabled, arming this partition causes the system to attempt to arm common area 3 automatically. To enable this field, field 1*18 must also be enabled (partition-specific). NOTE: Common area 3 cannot be armed unless all partitions programmed for "affect" (field 1*18) are already armed.

Auto Bypass Logic

At the end of the exit delay, if a door is left open or an interior zone is faulted, the system starts the entry delay period, and sounds the bell/siren(s) and keypad sounders for the duration of entry delay. This gives the user time to re-enter the premises and disarm the system before auto bypass occurs. If field *07 is enabled, the faulted zone(s) are auto bypassed at the end of exit delay (no entry delay is activated). If the user does not re-enter the premises and disarm the system, the system will bypass the faulted entry/exit and/or interior zone(s). The rest of the system will be armed. In addition, the following dialler reports will be sent to the central station if programmed:

- Auto bypass by User (not sent if using ADEMCO High Speed format)
- Auto bypass by Zone (Sent as regular alarm if using ADEMCO High Speed format)
- Bypass reports

NOTE: If field *07 is enabled **and** field 1*20 is **not** enabled, then faults remaining in the exit route at the end of the exit delay will cause an immediate alarm. This report is programmed in data fields 1*40 and 1*41.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
1*20	Auto Bypass Faulted Exit Route Zones 0 = disable 1 = enable	If enabled, the system automatically bypasses any exit route zones that are faulted at the end of the exit delay. This field must be enabled if field *07 is enabled.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
1*21	Exit Delay Reset 0 = disable 1 = enable	If enabled, when the panel is armed, the normal exit delay begins. After the user exits, closes the door, the exit delay time is reset to 60 seconds. If, within this 60-second period, the entry door is re-opened, the panel will restart the exit delay sequence again using the programmed exit delay time. NOTE: Exit Delay Reset is designed to allow an operator to re-enter the premises to retrieve a forgotten item without triggering an alarm.

Cross-Zoning

Cross Zoning is designed so that a combination of two zones must be faulted within a 5-minute period of each other to cause an alarm on either zone. This prevents momentary faults from one of the zones from causing an alarm condition. You can select four "sets" of cross-zones (programmed in data fields 1*22, 1*23, 1*24, and 1*25), keeping in mind the following:

- Both zones in each set must protect the same area.
- Both zones in each set must be in the same partition.
- A fire zone must only be crossed to another fire zone protecting the same physical area (**see warning below**).



DO NOT cross-zone a fire zone with a burglary zone under any circumstance. A fire zone must only be linked to another fire zone and BOTH must be protecting the same physical area (no walls or partitions separating them). As a guideline, we recommend that spacing between fire cross-zones be no further than 9m.

Conditions That Affect Cross-Zone Operation

- In the event of a continuous fault (lasting at least 5 minutes) on one of the paired zones, a fault on the second zone causes an alarm immediately.
- If one of the zones in a pair is bypassed or has a zone response type set to 0, the cross-zoning feature does not apply.
- If an entry/exit zone is paired with an interior follower zone, be sure to enter the entry/exit zone as the first zone of the pair. This ensures that the entry delay time is started before the follower zone is processed.
- If a relay is programmed to activate on a fault of one of the zones, the relay activates without the other zone being faulted.
- If a relay is programmed to activate on either an alarm or trouble, both zones must trip before the relay will activate, and both zones must restore for the relay to deactivate (if relay is programmed to deactivate on a Zone List Restore).

FIELD	TITLE and DATA ENTRIES	EXPLANATION
1*22	Cross Zoning Pair One Enter 001-128 Enter 000,000 to disable	Select the first pair of cross zones, which must both be faulted within a five-minute period to cause an alarm.
1*23	Cross Zoning Pair Two Enter 001-128 Enter 000,000 to disable	Select the second pair of cross zones, which must both be faulted within a five-minute period to cause an alarm.
1*24	Cross Zoning Pair Three Enter 001-128 Enter 000,000 to disable	Select the third pair of cross zones, which must both be faulted within a five-minute period to cause an alarm.
1*25	Cross Zoning Pair Four Enter 001-128 Enter 000,000 to disable	Select the fourth pair of cross zones, which must both be faulted within a five-minute period to cause an alarm.
1*26	Panic Button or Speedkey 00 = panic function (for D key = not used) 01-32 = macro number	Select for the A, B, and C keys whether the system performs a panic or a speedkey function when the key is pressed. Select for the D key whether the system performs a speedkey function or is not used.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
1*27	Field 1*31 RF Transmitter Check-in interval to be Multiple of 1 Hour or 2 Hours 0 = 2-Hours 1 = 1 Hour	Select whether the programming of field 1*31 should be in 1 hour or 2 hour increments (must be 1 hour for CENELEC compliance).
1*28	RF Transmitter Low Battery Sound 0 = disarmed state only 1 = both armed and disarmed states	Select when the RF transmitter low-battery condition should display and audible beep annunciate on the keypad.
1*29	RF Transmitter Low Battery Reporting 0 = disable 1 = enable	If enabled, the system sends a Trouble message for RF transmitter low-battery condition to the central station. NOTE: The Trouble message will be sent for a transmitter supervision failure, independent of this selection.
1*30	RF Receiver Supervision Check-in Interval Enter 02-15 times 2 hours (4-30 hours). 00 = disable receiver supervision.	Select the check-in monitoring interval for the RF receiver(s). Failure of a receiver to receive any RF signal within the time entered results in the activation of the response type programmed for zone 990 for the first receiver and zone 988 for the second receiver and their related communication reports.
1*31	RF Transmitter Check-in Interval Enter 02-15 times 2 hours (4-30 hours). 00 = disable transmitter supervision.	Select the check-in monitoring interval for the RF transmitters. Failure of an individual transmitter to send a supervision signal within the time entered will result in a trouble response and related communication report.
1*33	Multifrequency Dialling with Pulse Dial Back-up 0 = disable 1 = enable	If enabled, the communicator switches to pulse dial if it is not successful on the first attempt using multifrequency.
1*34	Communicator Split Reporting Selection 0 = Split Reporting disabled 1 = Alarm, Alarm Restore, and Cancel reports to primary, all others to secondary 2 = Open/Close and Test reports to secondary, all other reports to primary	Select the type of split reporting for system communication. NOTE: See *51 for split/dual reporting combinations.
1*35	Low Battery Test Interval 0 = 13 second test every 4 minutes (ANPI requirement) 1 = 1.5 second test every 50 seconds (Norwegian requirement)	Select the interval that the system performs a test of the system battery.
1*36	CPU Fail Trigger Output 0 = disable 1 = enable	If enabled, output 2 on J7 to be CPU Fail output, overriding any other selection for output 2 (CENELEC requirement).
1*37	TLM Input on Zone 9 0 = disable 1 = enable	If enabled, the telephone line fault monitor is to be fed into zone 9.
1*38	User Reset of Tamper Alarms Instead of Installer Only Reset 0 = disable (ANPI requirement) 1 = enable	If enabled, allows the user to reset tamper alarms.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
1*39	User Bypass of Tamper Faults Instead of Installer Only Bypass 0 = disable (ANPI requirement) 1 = enable	If enabled, allows the user to bypass tamper faults.
1*40	Maximum Number of Zones that can be Bypassed per Partition (partition-specific) Enter 01-15 Enter 00 for no restriction	Select the maximum number of zones that can be bypassed for any armed period. This cannot be 00 for ANPI compliance).
1*41	Bypass/Unbypass Zones when Armed 0 = disable 1 = enable	If enabled, zones can be bypassed and unbypassed while the system is armed.
1*42	Call Waiting Defeat 0 = disable 1 = enable	If enabled, the system defeats Call Waiting on the first outgoing call attempt to both the primary and secondary numbers. NOTE: After the panel's initial call to report the alarm, the panel may attempt to make an additional call, perhaps for a cancel or a zone restoral. If Call Waiting is not defeated, an operator at the central station attempting to contact the premises (to verify whether the alarm is valid) hears the phone ringing indefinitely and must to dispatch on the call. DO NOT enable this feature unless Call Waiting is being used.
1*43	Permanent Keypad Display Backlighting (partition-specific) 0 = disable 1 = enable	If enabled, backlighting for the keypad display remains on at all times. Otherwise the backlighting comes on when a key is pressed. NOTE: When a key is pressed, display backlighting turns on for all keypads in that partition.
1*44	Wireless Keypad Tamper Detect 0 = disable 1 = enable (ANPI requirement)	If enabled, when more than 40 key depressions are received without a valid sequence (arm, disarm, etc.), the control panel disables the wireless keypad. The inhibit is removed once a valid key sequence is received from a wired keypad.
1*45	Exit Delay Sounding (partition-specific) 0 = disable 1 = enable	If enabled, the system produces slow beeping from the keypads during exit delay and reverts to rapid beeping during the last 10 seconds of the exit delay.
1*46	Auxiliary Output Mode 0 = ground start output. 1 = smoke detector reset. 2 = keypad sounds at an auxiliary sounder. 3 = AAV module.	Select the mode for output 1 on the J7 triggers. NOTES: Only one of the options may be active within the system. Option 2 applies only to the partition enabled in field *15.
1*47	Chime on External Siren (partition-specific) 0 = disable 1 = enable	If enabled, the system produces chime annunciation on the external alarm sounder.
1*48	Wireless Keypad Assignment 0 = none 1-8 = partition number	Select the partition in which RF keypad is used.
1*49	Suppress Transmitter Supervision Sound 0 = disable 1 = enable	If enabled, no trouble soundings occur on the keypad for transmitter check-in failures.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
1*50	Number of Seconds Added per Day Enter 00-30	Enter the number of seconds that will be added per day to correct the real-time clock.
1*51	Number of Seconds Subtracted per Day Enter 00-30	Enter the number of seconds that will be subtracted per day to correct the real-time clock.
1*52	Send Cancel If Alarm + Off (partition-specific) 0 = disable 1 = enable	If enabled, Cancel reports are sent when the system is disarmed after an alarm, regardless of how much time has gone by. If disabled, Cancel reports are sent within Alarm Sounder Timeout period only.
1*53	Disable Download Callback 0 = callback required 1 = no callback required	Select whether a callback from the control panel is required for downloading.
1*54	Internal Clock Sync 0 = use AC sync for clock 1 = use internal crystal for clock	Select the sync method for the real-time clock.
1*55	International Date Format 0 = disable (mm/dd/yy) 1 = enable (dd/mm/yy)	Select the date format for display in the event log.
1*56	AC 60Hz or 50Hz 0 = 60Hz 1 = 50Hz	Select the frequency for the AC mains.
1*57	Enable 5800 RF Button Global Arm 0 = disable 1 = enable	If enabled, the system arms/disarms in accordance with the button's user's global arming settings.
1*58	Enable 5800 RF Button Force Arm 0 = disable 1 = enable	If enabled, allows the RF button user to force a bypass of all faulted zones when arming the system. NOTE: When attempting to arm the system, the keypad beeps once after the button is pressed if any faulted zones are present. The user should then press the button again within 4 seconds to force-bypass those zones and arm the system.
1*59	Suppress Status LED Output When Zone 7 Keyswitch Enabled/Retain Voltage Trigger Outputs 0 = disable 1 = enable	If enabled, the system suppresses the keyswitch status LEDs and provides voltage triggers on the J7 outputs.
1*60	Zone 5 Audio Alarm Verification 0 = disable 1 = enable	If enabled, zone 5 is used for 2-way audio (AAV). NOTE: Zone 5 cannot be used as protection zone.
1*61	Display Tamper 0 = disable 1 = enable	If enabled, the system displays "Tamper" instead of "Check" or "Trbl" (see field 1*07).
1*62	Tamper Detect in Test Mode 0 = disable 1 = enable	If enabled, the system terminates the test mode and displays the tamper condition. If disabled, the system remains in test mode and displays "fault."

FIELD	TITLE and DATA ENTRIES	EXPLANATION
1*66	Silence Sounder During AAV 0 = disable 1 = enable	If enabled, the system silences the alarm sounder and the keypad when AAV is being used and listening microphones are on.
1*67	Video Alarm Verification 0 = disable 1 = enable	If enabled, the system transmits the Contact ID code 609 so the central station equipment can be ready for video image reception and processing.
1*70	Event Log Types 0 = disable 1 = enable	This field has five entries as follows: Alarm, Check, Bypass, Open/Close, System. If enabled, the system logs those types of events into the event log. NOTE: Events are also logged into the PassPoint system, if installed.
1*71	12/24 Hour Time Stamp Format 0 = 12-hour 1 = 24-hour	Select the type of time stamping for the event log.
1*72	Event Log Printer On-Line Mode 0 = disable 1 = enable	If enabled, the system prints the events as they occur. If disabled, the system prints the log only upon request.
1*73	Printer Baud Rate 0 = 1200 (preferred) 1 = 300	Select the baud rate for the serial printer.
1*74	Relay Timeout XXX Minutes Enter 000-127 times 2 minutes (000-254).	This is used for #80 Menu Mode Time-Driven event relay command numbers "04/09" and <i>Output Programming</i> in the #93 Menu Mode <i>Programming</i> output command "56."
1*75	Relay Timeout YYY Seconds Enter 000-127 seconds.	This is used for #80 Menu Mode Time-Driven event relay command numbers "05/10" and <i>Output Programming</i> in the #93 Menu Mode <i>Programming</i> command "57."
1*76	Access Control Relay (partition-specific) 01-96 = relay number 00 = relay not used.	If enabled, the assigned relay closes for 2 seconds when the user enters his code and presses 0.
1*77	Log First Maintenance Signal 0 = no logging 1 = log first maintenance signal from each smoke detector	Select whether the system should log the first maintenance signal from each smoke detector.
2*00	Number of Partitions Enter 1-8.	Enter the number of partitions used in the system.
2*01	Summer Time Start/End Month 0 = disable 1 = enable	Enter the months (00-12) in which summer time starts and ends. Enter 00, 00 if summer time does not apply to the user's region. Standard setting for North America is 04,10. NOTE: Summer time starts and ends at 2AM on the designated month and weekend
2*02	Summer Time Start/End Weekend 0 = disable 1 = enable	Enter the start and end weekends for summer time as follows: 1=first; 2=second; 3=third; 4=fourth; 5=last; 6=next to last; 7=third from last. Standard setting for North America is 1,5.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
2*05	Auto-Arm Delay (partition-specific) 00 = no delay. 01-14 times 4 minutes (04-56) delay. 15 = no auto arming.	This is the time between the end of the arming window and the start of auto-arm warning time (field 2*06).
2*06	Auto-Arm Warning Period (partition-specific) 01-15 times 1-minute warning. 00 = no warning period.	This is the time that the user is warned by a keypad sounding and display to exit the premises prior to auto arming of the system.
2*07	Auto-Disarm Delay (partition-specific) 00 = no delay. 01-14 times 4 minutes (04-56) delay. 15 = no auto disarming.	This is the time between the end of the disarming window and the start of auto disarming of the system.
2*08	Enable Force Arm for Auto-Arm (partition-specific) 0 = disable 1 = enable	If enabled, the system automatically bypasses any faulted zones when it attempts to auto-arm. If disabled, the system will not auto-arm.
2*09	Open/Close Reports by Exception (partition-specific) 0 = disable 1 = enable	If enabled, Open/Close reports are sent only if the openings/closings occur outside the arm and disarm windows. NOTES: Open reports are also suppressed during the closing window in order to prevent false alarms if the user arms the system, then re-enters the premises, for example to retrieve a forgotten item. Openings and closings are still recorded in the event log. This field must be set to 1 if No Opening and No Closing reports are to be sent.
2*10	Allow Disarming Only During Arm/Disarm Windows (partition-specific) 0 = disable 1 = enable	If enabled, disarming of the system is allowed only during the arming/disarming windows, or if the system is in alarm (if 2*11 is set to 1). NOTE: This applies only to Operator-level users. Installer, Master, and Manager-level users can disarm the system at any time.
2*11	Allow Disarm Outside Window if Alarm Occurs 0 = disable 1 = enable	If enabled, allows the system to be disarmed outside the programmed disarm (opening) window if an alarm has occurred. Otherwise disarming is allowed only during the disarm window. NOTE: Used only if field 2*10 is enabled.
2*18	Enable GOTO for this Partition (partition-specific) 0 = disable 1 = enable	If enabled, this partition can be accessed from another partition's keypad using the GOTO command.
2*19	Use Partition Descriptors 0 = disable 1 = enable	If enabled, the normal keypad display will include a partition number and four-digit descriptor.
2*20	Enable J7 Triggers for Partition (partition-specific) 0 = disable 1 = enable	If enabled, the J7 triggers function for this partition.

FIELD	TITLE and DATA ENTRIES	EXPLANATION
2*21	Supervision Pulses for LRR 0 = disable 1 = enable	There are three entries in this field as follows: Fire, Burglary/Audible Panic, Silent Panic/Duress. If enabled, causes the control to send periodic short pulses on the J7 radio triggers to the LRR. The LRR uses these pulses to determine that its connection to the control is still intact.
2*22	Display Fire Alarms of Other Partitions (partition-specific) 0 = disable 1 = enable	If enabled, allows fire alarms that occur on other partitions to be displayed at this partition's keypad(s).
2*23	Display Burglary & Panic Alarms for Other Partitions (partition-specific) 0 = disable 1 = enable	If enabled, allows burglary and panic alarms that occur on other partitions to be displayed at this partition's keypad(s).
2*24	Display Troubles of Other Partitions (partition-specific) 0 = disable 1 = enable	If enabled, allows troubles that occur on other partitions to be displayed at this partition's keypad(s).

#93 Menu Mode Programming

#93 Main Menu Options



The following field should be programmed before beginning: 2*00: Number of Partitions.

After programming all system related programming fields in the usual way, press #93 while still in programming mode to display the first choice of the menu driven programming options, which are as follows:

MAIN MENU	OPTIONS
ZONE PROG? 1 = YES 0 = NO 0	For programming the following: <ul style="list-style-type: none"> • Zone Number • Zone Response Type • Partition Number for Zone • Dialler report code for zone • Input Device Type for zone (whether RF, polling loop, etc.) • Enrolling serial numbers of 5800 Series transmitters & serial polling loop devices into the system.
SEQUENTIAL LEARN? 1 = YES 0 = NO 0	Same as Zone Programming except: <ul style="list-style-type: none"> • Input Device Type for Zone (RF, polling loop, etc.). • Enrolling serial numbers of 5800 Series transmitters & serial polling loop devices into the system.
REPORT CODE PROG? 1 = YES 0 = NO 0	For programming the following: <ul style="list-style-type: none"> • Alarm report codes for zones • Restore and supervisory codes • All other system report codes
ALPHA PROG? 1 = YES 0 = NO 0	For entering alpha descriptors for the following: <ul style="list-style-type: none"> • Zone Descriptors • Installer's Message • Custom Words • Partition Descriptors • Relay Descriptors
DEVICE PROG? 1 = YES 0 = NO 0	For defining the following device characteristics for addressable devices, including keypads, RF receivers (5881/5882EU), 4204 relay modules, 4286 VIP Module, and VISTA Gateway Module: <ul style="list-style-type: none"> • Device Address • Device Type • Keypad Options (including Partition assignment) • RF House ID
RELAY PROG? 1 = YES 0 = NO 0	For defining output device functions.
RLY VOICE DESCR? 1 = YES 0 = NO 0	For entering voice descriptors for relays to be used with the 4286/4286 VIP Module.
CUSTOM INDEX ? 1 = YES 0 = NO 0	For creating custom word substitutes for VIP Module annunciation.
CLEAR RF SERIAL#? 1 = YES 0 = NO 0	For deleting all RF serial numbers presently in the system.

Following is a list of commands used while in the Menu Mode:


#93 Menu Mode Programming Commands

#93	Enters Menu Mode.
[*]	Serves as [ENTER] key. Press to have keypad accept entry.
[#]	Backs up to previous screen.
0	Press to answer NO.
1	Press to answer YES.
00, or 000+[*]	Quits the Menu Mode and goes back into Data Field Programming Mode, if entered at the first prompt of each main menu option.




Zone Programming

Enter Programming mode [Installer Code] + **8 0 0 0**. Field 2*00 should be programmed before beginning. Also, before programming wireless zones, the RF receiver must be enabled in Device Programming Mode (procedure described later in the *Device Programming* section).

Then press #93 to display "ZONE PROG?".

PROMPT	EXPLANATION
<div>ZONE PROG?</div> <div>1 = YES 0 = NO 0</div>	Press 1 to enter ZONE PROGRAMMING mode. The following screens will appear. Press * to display the next screen. Press # to display a previous screen.
	If the system has been set up to use 5800 series RF, and a programme tool has not been programmed, the following "PROGRAM TOOL" prompt will be displayed. If the system has not been set up to use 5800 series RF or a programme tool has already been programmed, the system will advance to the "ENTER ZN NO." prompt.
<div>PROGRAM TOOL?</div> <div>1 = YES 0 = NO 0</div>	If a programme tool is being used, enter "1." If not using a tool, enter "0". When a "0" is entered, the system will advance to the "ENTER ZN NO." prompt.
<div>010 INPUT S/N: L</div> <div>Axxx-xxxx</div>	<p>If "1" is entered, the system will prompt for the unit's serial number. Enter the programme tool's serial number using one of the following methods:</p> <ol style="list-style-type: none"> Enter the 7-digit serial number for the transmitter <p>or</p> <ol style="list-style-type: none"> Press any button on the transmitter. The keypad should beep three times and display the serial number of the tool.
<div>010 PROG AS BR: 3</div> <div>A123-4567</div>	<p>In this example, the serial number is A123-4567. Once enrolled, the upper left-hand button of the programme tool can be pressed to ready the system for enrolling a device into the system.</p> <p>The serial number for the programme tool will only remain in the system until the programming mode is exited. (Entering ?97 will not delete the tool.)</p> <p>Press * to continue or press the # key to back the system up to the "PROGRAM TOOL?" prompt.</p>
<div>ENTER ZN NO.</div> <div>000 = QUIT 020</div>	Enter the zone number to be programmed (protection zones 001-128, relay zones 601-696, ECP device supervisory zones 800-831, system supervision zones 988, 990,992 [duress], 997 or keypad panic zones 995, 996, 999). Press * to accept entry.
<div>020 ZT P RC In:L</div> <div>00 1 00 RF:N</div>	A summary screen for that zone will appear. ZT=Zone Type, P=Partition, RC=Report Code, In:=the input type of device, and L=the device's loop number to which the sensor is connected (some devices can support more than one zone by means of individual loops (ex. 5801, 5804, 5804EU, 5816, 5816EU, 5817, etc.).

PROMPT	EXPLANATION																		
Zone Response Zone Disabled 00	<p>Each zone in a system must be assigned a zone type, which defines the way in which the system responds to faults in that zone. Refer to <i>SECTION 4: Programming</i> for detailed definitions of each zone type. Enter the zone response type for this zone. The screen will automatically display the zone type for the number entered. Press * to accept entry.</p> <p>Zone Types are as follows:</p> <table> <tr> <td>00 Assign for unused zones</td><td>09 Fire</td></tr> <tr> <td>01 Entry/Exit #1, burglary</td><td>10 Interior, delay, burglary</td></tr> <tr> <td>02 Entry/exit #2</td><td>19 24 hour Trouble</td></tr> <tr> <td>03 Perimeter, burglary</td><td>20 Arm-stay†</td></tr> <tr> <td>04 Interior, follower, burglary</td><td>21 Arm-away†</td></tr> <tr> <td>05 Trouble by day/Alarm by night burglary</td><td>22 Disarm†</td></tr> <tr> <td>06 24 hour silent alarm</td><td>23 No alarm response (ex. relay action)</td></tr> <tr> <td>07 24 hour audible alarm</td><td>27 Access Point</td></tr> <tr> <td>08 24 hour auxiliary</td><td>28 MLB Supervision (if PTVGM installed)</td></tr> </table> <p>† For 5800/5800EU series RF devices or serial number multiplex devices only</p>	00 Assign for unused zones	09 Fire	01 Entry/Exit #1, burglary	10 Interior, delay, burglary	02 Entry/exit #2	19 24 hour Trouble	03 Perimeter, burglary	20 Arm-stay†	04 Interior, follower, burglary	21 Arm-away†	05 Trouble by day/Alarm by night burglary	22 Disarm†	06 24 hour silent alarm	23 No alarm response (ex. relay action)	07 24 hour audible alarm	27 Access Point	08 24 hour auxiliary	28 MLB Supervision (if PTVGM installed)
00 Assign for unused zones	09 Fire																		
01 Entry/Exit #1, burglary	10 Interior, delay, burglary																		
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03 Perimeter, burglary	20 Arm-stay†																		
04 Interior, follower, burglary	21 Arm-away†																		
05 Trouble by day/Alarm by night burglary	22 Disarm†																		
06 24 hour silent alarm	23 No alarm response (ex. relay action)																		
07 24 hour audible alarm	27 Access Point																		
08 24 hour auxiliary	28 MLB Supervision (if PTVGM installed)																		
010 ACCESS POINT (00-31) 01	If response type 27 was selected, this prompt will be displayed. Enter the access point to be controlled by the input type (00-31) .																		
010 ENTRY OR EXIT 0	<p>Select whether the access point is an entry or exit point.</p> <p>0 = entry 1 = exit</p>																		
020 Partition	Enter the partition number (1-8) in which this zone is located.																		
020 Report Code	Enter the report code for this zone.																		
020 Input Type RF Trans. RF	<p>Enter the input device type as follows: 0 = not used; 1=wired; 3=supervised RF transmitter (RF type); 4=unsupervised RF transmitter (UR type); 5=RF button type transmitter (BR type); 6=serial number polling loop device (SL type); 7=DIP switch type polling loop device; 8=right loop of DIP switch type device; 9=keypad input (code + #73, code + #74); 10=PassPoint ACS input.</p> <p>Right loops refer to the use of the right loop on a 4190WH zone expander module and/or 4278 series PIR, which allow hard-wired devices to be monitored by the polling loop.</p> <p>If wired, DIP switch polling loop devices are being programmed, after completing this entry, the summary display appears.</p> <p>Press * to continue. The display will now return to the "Enter Zone Number" prompt for programming the next zone into the system. If all zones are programmed, enter 00 and press * to exit back to normal programming mode.</p> <p>If either 5800 series RF or polling loop serial number devices are being programmed, continue to the next prompt.</p> <p>NOTE: Note that input types 4 & 5 are valid for certain 5800/5800EU series transmitters only (ex. 5801, 5802, 5802CP, 5804EU& 5804).</p>																		
020 Report Code	Enter the report code for this zone.																		
010 SMART CONTACT 1 = YES 0 = NO	If input type 6 was selected, this prompt will be displayed. Enter 1 for devices that monitor maintenance signals (ex. 5192SD, 5192SDT, 5808). Otherwise, enter 0 .																		
V-PLEX RELAY? 1 = YES 0 = NO	If input type 6 was selected, this prompt will be displayed. Enter 1 if using 4208-4 or 4101SN relay module for this zone. Otherwise, enter 0 .																		

PROMPT	EXPLANATION
020 CONS ECP ADDR (01-31) 01	If input type 09 was selected, this prompt will be displayed. Enter the ecp address of the keypad that is being used for entry/exit for this access point (01-31).
020 ACS ZONE NO (01-31) 01	If input type 10 was selected, this prompt will be displayed. Enter the Passpoint ACS zone ID that this Vista zone maps to (00-31). Press * to continue.
020 LOOP # 1	The cursor should now be flashing on the loop number. The default is "1." To accept this, press *. If a different loop number is being used on this device, enter the loop number (1-4) and press * to continue. (Refer to the transmitter's instructions for loop numbers.) The loop number must be entered here, whether using Zone Programming or Sequential Mode to enroll serial numbers. If you want to delete the serial number, enter "0" and press *. The system will then prompt, "DELETE S/N?" Press the "1" (YES) key to complete the delete sequence. This process deletes the serial number only, not the loop number. The assumption is that the proper loop number was programmed, but the wrong serial number was enrolled.
020 LEARN S/N? 1 = YES, 0 = NO 1	If the device's serial number has not been previously "enrolled," you may enter the enrollment mode now by either entering "1" (YES) or by pressing the upper left-hand button of the programme tool. If using the programme tool, move to the physical location of the device to be enrolled before pressing the button. A single short beep will verify that the button has been pressed. The system will respond to the first serial number transmitted after the "1" key on the keypad or the button of the programme tool is pressed. Enter "0" (NO) to enroll later. (If "0" is entered, the system will advance to the summary screen prompt.)
020 INPUT S/N AXXX-XXXX	This prompt is displayed if "1" (YES) is entered in response to the "Learn S/N?" prompt. The serial number may be enrolled by one of two methods: a) Enter the 7-digit serial number printed on the device using an alpha keypad, OR b) Activate the device (e.g., press a button, open or close a door, etc.).
020 INPUT S/N A022-4064	The system will enroll the serial number of the first device heard. The system will then enter an optional confirmation mode so that the operation of the actual programmed input can be confirmed. Activate the loop input or button that corresponds to this zone. We recommend that you confirm the programming of every device before proceeding to the next zone.
	If the serial and loop number combination is already present in the system, the keypad will sound a single long beep and display the word "DUPLICATE" along with the serial number, and the number of the zone containing the serial/loop number combination.
020 CONFIRM RF:1 A022-4064 1	When the system sees activity on the appropriate input, it will beep three times and display the confirmation message.
	At any time during this step, you may press the * key on the keypad or the upper left-hand button of the programme tool if you are satisfied with the serial and loop number combination that has been enrolled, regardless of whether or not the enrolled input has been "confirmed." If the incorrect device has been enrolled, press the [#] key on the keypad or upper right-hand button on the programme tool to delete the serial number and return to the "LEARN S/N" prompt. A single long beep will be heard from the keypad to verify pressing of the upper right-hand button. Then, press "1" (Yes) or press the upper left-hand button of the programme tool (a single short beep will verify the system is ready for enrolling) and re-activate the proper device loop input.
010 ZT P RC B INL s 03 2 3C 0 RF1	The summary screen for the zone will appear. Note that an "s" indicates that a serial number has, in fact, been enrolled. Press * to accept the zone information. If you want to delete the serial number, press [#]. This will bring you back to the "INPUT TYPE" prompt. Press * to change input type, loop number, and serial number.
	When you have finished programming all zones, test each using the system's TEST mode. Do not use the Transmitter ID Sniffer mode for this, as it will only check for transmission of one zone on a particular transmitter, NOT the zones assigned to each additional loop, and will not verify polling loop type zones.

Sequential Mode Programming

Usually, serial numbers are enrolled during zone programming. If not, use #93 menu mode to enroll serial numbers (for example, if all other programming was done via downloading).



Use this mode only after all other zone information has been programmed, including transmitter loop numbers.

1. Enter data field programming mode: installer code + 8 0 0 0.
2. From data field programming mode, press #93 to display the "ZONE PROG?" prompt.
3. Press 0 (NO) repeatedly until the "SEQUENTIAL LEARN?" prompt appears.

PROMPT	EXPLANATION
SEQUENTIAL LEARN? 0 = NO, 1 = YES 0	To enroll or delete a device's serial number, enter 1 (yes). Enter 0 to move to skip to the next main menu option.



If the system has been set up to use 5800 series RF, and a programme tool has not been programmed, the following "PROGRAM TOOL" prompt will be displayed. If the system has not been set up to use 5800 series RF or a programme tool has already been programmed, the system will advance to the "TECHNOLOGY TYPE" prompt.

PROGRAM TOOL? 0 = NO, 1 = YES 0	If a programme tool is being used, enter "1." If not using a tool, enter "0". When a "0" is entered, the system will advance to the "TECHNOLOGY TYPE" prompt.
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010 INPUT S/N: L AXXX-XXXX	If "1" is entered, the system will prompt for the unit's serial number. Enter the programme tool's serial number using one of the following methods: a) Enter the 7-digit serial number for the transmitter, or b) Press any button on the transmitter. The keypad should beep three times and display the serial number of the tool.
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010 PROG AS BR: 3 A123-4567 3	In this example, the serial number is A123-4567. Once enrolled, the upper left-hand button of the programme tool can be pressed to ready the system for enrolling a device into the system. The serial number for the programme tool will only remain in the system until the programming mode is exited. (Entering *97 will not delete the tool.) Press * to continue or press the [#] key to back the system up to the "PROGRAM TOOL ?" prompt.
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TECHNOLOGY TYPE WIRELESS 0	Enter the type of device(s) to be enrolled as follows: 0 = Wireless (Default) 1 = Polling Loop 2 = Both Press * to continue.
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ENTER ZN NO. (000 = QUIT) 010	Enter the first zone number to be enrolled (e.g., zone 010). Press * to continue. The system will, starting with this zone number, search for the first device which had all of the following attributes pre-programmed in Zone Programming: a) An input type of RF, UR, BR, or SL (if serial polling loop devices enabled) programmed b) A loop number programmed c) No serial number programmed
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If the first zone number entered does **not** have one or more of the above attributes, the system will search its database for the first zone that does and will display it on the next screen.

PROMPT	EXPLANATION
010 INPUT S/N A XXX-XXXX	<p>This prompt is displayed when the system has found the next zone which needs to be enrolled. The system will respond to the first serial number transmitted. A serial number may be enrolled by one of two methods:</p> <p>a) Enter the 7-digit serial number printed on the device.</p> <p>or</p> <p>b) Activate the device (e.g., press a button, open or close a door, etc.).</p>
 <p>If you do not wish to enroll the zone displayed, press the # key on the keypad or the upper right-hand button on the programme tool (a long beep will be heard to verify). The following prompt will appear:</p>	
010 LEARN S/N? 0 = NO, 1 = YES 0	To enroll now, enter "1" (YES). If "0" (NO) is entered, the following prompt will appear.
ENTER ZN NUM. (000 = QUIT) 010	<p>Enter the next zone number to be enrolled (e.g., zone 010). The system will search for that zone and will display the "ENTER ZONE NO." prompt. If you wish to exit the enrollment mode completely, enter 000 and press *.</p>
010 INPUT S/N A 022-4064	<p>The system will enroll the first serial number heard, display the serial numbers, and cause the keypad to beep twice.</p> <p>If the serial and loop number combination is already present in the system, the keypad will sound a single long beep and display the word "DUPLICATE" along with the serial number, and the number of the zone containing the serial/loop number combination.</p> <p>The system will then enter an optional confirmation mode so that the operation of the actual programmed input can be confirmed. Activate the loop input or button that corresponds to this zone. We recommend that you confirm the programming of every device before proceeding to the next zone.</p>
010 CONFIRMED SL:1 A022-4064	<p>When the system sees activity on the appropriate input, it will beep three times and display the confirmation message. Press * or the upper left-hand button of the programme tool when you are ready to enroll the next serial number device.</p> <p>The system will search for the next zone that does not have a serial number associated with it. If one is found, the system will return to the "INPUT S/N" prompt for the remaining zones.</p> <p>After all zones have been displayed, whether enrolled or not, the "ENTER ZN NO." prompt will appear. Enter "000" to exit the Sequential mode and return to data field programming mode.</p>
 <p>At any time during this step, you may press the * key on the keypad or the upper left-hand button of the programme tool if you are satisfied with the serial and loop number combination that has been enrolled, regardless of whether or not the enrolled input has been "confirmed." This will ready the system to enroll the next serial number device.</p> <p>If the incorrect device has been enrolled, press the [#] key on the keypad or the upper right-hand button of the programme tool to delete the serial number and return to the "LEARN S/N" prompt. A single long beep will be heard from the keypad to verify pressing of the upper right-hand button. Then, press "1" (Yes) or press the upper left-hand button of the programme tool (a single short beep will verify the system is ready for enrolling) and re-activate the proper device or device loop input.</p>	
 <p>When you have finished programming all zones, test each using the system's TEST mode. Do not use the Transmitter ID Sniffer mode for this, as it will only check for transmission of one zone on a particular transmitter, NOT the zones assigned to each additional loop, and will NOT verify polling loop type.</p>	

Report Code Programming

All report codes are entered using #93 menu mode programming, either through Report Code Programming, or through the Zone Programming mode while entering other zone information. In the Vista-120, reports are divided into six categories. These categories represent the main menu options found in the Report Code Programming mode. Reports and the categories in which they are found are as follows:

ALARM CODES	RESTR, SUPV. CODES (for groups of 16 zones)	SYSTEM GROUP #1	SYSTEM GROUP #2	SYSTEM GROUP #3
Zone Alarm Reports	Alarm Restore Trouble Trouble Restore Bypass Bypass Restore	Closing (arm AWAY) Opening (disarm) System Low Battery Low Battery Restore AC Mains Loss AC Mains Restore Periodic Burglary Test Power Cancel Programme Tamper Callback Request	Arm STAY Time Set, Log Reset Log 50%, 90% Full Event Log Overflow Auto Bypass by Zone Auto Bypass by User Recent Close	Early Open Early Close Late Open Late Close Failed to Open Failed to Close Auto-Arm Failed Schedule Change

The programming sequence that follows assumes that you will be entering all reports for the system at one time. In actuality, you may skip from one main menu option to another by pressing 0 (N) to each main menu option. Main menu options are highlighted in bold text.

To enter report codes, do the following:

Enter Programme mode [Installer Code] + **8 0 0 0**, then press #93. Enter (N) to the main menu options until the Report Code Programming option is displayed.

PROMPT	EXPLANATION
REPORT CODE PROG 0 = NO, 1 = YES 0	Press 1 (Y) to enter to Report Code Programming mode.

Zone Alarm Reports

PROMPT	EXPLANATION
ALARM, ID DIGIT? 1 = YES 0 = NO 0	Press 1 (Y) to enter alarm report codes for zones. Press 0 (N) to skip to the next main menu option.
ENTER ZONE NO. 000 = QUIT 001	Enter the zone number for which you are entering the report code. Press * to continue.
REPORT CODE 1st 00 2nd 00 00	Enter the first digit of the alarm report code (double-digit entry) and press *. Enter the 2nd digit of the alarm report code. Press *.
ENTER ZONE NO. 000 = QUIT 001	Enter the zone number for which you are entering the report code. When all zone alarm codes have been programmed, enter 000 to Quit. Press *.
QUIT REPORT MENU 1 = YES 0 = NO 0	If you have completely finished entering report codes, press 1 (Y) to quit Report Code Programming mode. If you wish to enter other system report codes, enter 0(N) and press *.

Restore/Supervisory Codes

PROMPT	EXPLANATION
RESTR, SUPV. CODE 1 = YES 0 = NO 0	Press 1 (Y) to enter restore and supervisory codes for zones.
ENTER ZN FOR GRP 000 = QUIT 001	Enter one zone for each group of 16 zones (001-016, 017-032, etc.)
ALARM RESTORE GRP 001-016 00	Enter the first digit of the alarm restore report code for this group of zones (double-digit entry). The second digit will be the ID (second) digit of the alarm report code for each zone (if programmed). Press * to continue.
TROUBLE GRP 001-016 00	Enter the first digit of the trouble report code for this group of zones (double-digit entry). The second digit will be the ID (second) digit of the alarm report code for each zone (if programmed). Press * to continue.
TROUBLE RESTORE GRP 001-016 00	Enter the first digit of the trouble restore code (single-digit entry) and press *. The second digit will be the ID (second) digit of the alarm report code for each zone (if programmed). Press * to continue.
BYPASS GRP 001-016 00	Enter the first digit of the bypass report code (double-digit entry) and press *. The second digit will be the ID (second) digit of the alarm report code for each zone (if programmed). Press * to continue.
BYPASS RESTORE GRP 001-016 00	Enter the first digit of the bypass restore report code (double-digit entry) and press *. The second digit will be the ID (second) digit of the alarm report code for each zone (if programmed). Press * to continue.
ENTER ZN FOR GRP 000 = QUIT 017	Enter one zone for each group of 16 zones. When finished entering restore and supervisory codes for all zone groups, enter 000 and press * to continue.
QUIT REPORT MENU 1 = YES 0 = NO 0	If you have completely finished entering report codes, press 1 (Y) to quit Report Code Programming mode. If you wish to enter other system report codes, enter 0 (N) and press * to continue.

System Group 1 Codes

PROMPT	EXPLANATION										
SYSTEM GROUP #1? 1 = YES 0 = NO 0	To enter System Group #1 codes, press 1 (Y).										
CLOSE 1st 00 2 nd 00 00	<p>Enter the first digit of the Closing (Arm-Away) report. Press *. Enter the second digit of the report. If the user number is desired as the second digit, enter 01 (not necessary for Contact ID or High Speed formats). Press * to continue.</p> <p>Enter the rest of the codes in the same manner. Other codes in System Group #1 are:</p> <table> <tr> <td>Opening (Disarm)</td><td>Periodic Test</td></tr> <tr> <td>System Low Battery</td><td>Power</td></tr> <tr> <td>Low Battery Restore</td><td>Cancel</td></tr> <tr> <td>AC Mains Loss</td><td>Programme Tamper</td></tr> <tr> <td>AC Mains Restore</td><td>Callback Request</td></tr> </table> <p>Once you have entered these report codes, the system will prompt:</p>	Opening (Disarm)	Periodic Test	System Low Battery	Power	Low Battery Restore	Cancel	AC Mains Loss	Programme Tamper	AC Mains Restore	Callback Request
Opening (Disarm)	Periodic Test										
System Low Battery	Power										
Low Battery Restore	Cancel										
AC Mains Loss	Programme Tamper										
AC Mains Restore	Callback Request										
QUIT REPORT MENU 1 = YES 0 = NO 0	If you have completely finished entering report codes, press 1 (Y) to quit Report Code Programming mode. If you wish to enter other system report codes, enter 0 (N) and press * to continue.										

System Group 2 Codes

PROMPT	EXPLANATION						
<div>SYSTEM GROUP #2?</div> <div>1 = YES 0 = NO 0</div>	To enter System Group #2 codes, press 1 (Y).						
<div>STAY</div> <div>1st 00 2nd 00 00</div>	<p>Enter the first digit of the Arm-STAY report. Press *. Enter the second digit of the report. If the user number is desired as the second digit, enter 01 (not necessary for Contact ID or High Speed formats). Press * to continue.</p> <p>Enter the rest of the codes in the same manner. Other codes in System Group #2 are:</p> <table> <tr> <td>Time Set, Log Reset</td><td>Autobypass by Zone</td></tr> <tr> <td>Log 50%, 90% Full</td><td>Autobypass by User</td></tr> <tr> <td>Event Log Overflow</td><td>Recent Close (sent if alarm occurs within 5 minutes of arming)</td></tr> </table> <p>Once you have entered these report codes, the system will prompt:</p>	Time Set, Log Reset	Autobypass by Zone	Log 50%, 90% Full	Autobypass by User	Event Log Overflow	Recent Close (sent if alarm occurs within 5 minutes of arming)
Time Set, Log Reset	Autobypass by Zone						
Log 50%, 90% Full	Autobypass by User						
Event Log Overflow	Recent Close (sent if alarm occurs within 5 minutes of arming)						
<div>QUIT REPORT MENU</div> <div>1 = YES 0 = NO 0</div>	<p>If you have completely finished entering report codes, press 1 (Y) to quit Report Code Programming mode. If you wish to enter other system report codes, enter 0 (N) and press * to continue.</p>						

System Group 3 Codes

PROMPT	EXPLANATION								
<div>SYSTEM GROUP #3?</div> <div>1 = YES 0 = NO 0</div>	To enter System Group #3 codes, press 1 (Y).								
<div>STAY</div> <div>1st 00 2nd 00 00</div>	<p>Enter the first digit of the Early Opening report. Press *. Enter the second digit of the report. If the user number is desired as the second digit, enter 01 (not necessary for Contact ID or High Speed formats). Press * to continue.</p> <p>Enter the rest of the codes in the same manner. Other codes in System Group #2 are:</p> <table> <tr> <td>Early Close</td><td>Failed to Close</td></tr> <tr> <td>Late Open</td><td>Auto-Arm Failed</td></tr> <tr> <td>Late Close</td><td>Schedule Change</td></tr> <tr> <td>Failed to Open</td><td></td></tr> </table> <p>Once you have entered these report codes, the system will prompt:</p>	Early Close	Failed to Close	Late Open	Auto-Arm Failed	Late Close	Schedule Change	Failed to Open	
Early Close	Failed to Close								
Late Open	Auto-Arm Failed								
Late Close	Schedule Change								
Failed to Open									
<div>QUIT REPORT MENU</div> <div>1 = YES 0 = NO 0</div>	<p>If you have completely finished entering report codes, press 1 (Y) to quit Report Code Programming mode. If you wish to enter other system report codes, enter 0 (N) and press * to continue.</p>								

Alpha Descriptor Programming

- You can programme a user friendly English language description/location keypad display for all protection zones, relays, keypad panics, polling loop short, and RF receiver supervision troubles.
 - Each description can be composed of a combination of words (up to a maximum of 3) selected from a vocabulary of 244 words stored in memory, and any word can have an "s" or " ' " added to it.
 - Also, up to 20 installer-defined words can be added to the memory. Thus, when an alarm or trouble occurs in a zone, an appropriate description for the location of that zone is displayed at the keypad.
 - A custom installer's message can be programmed for each partition, which will be displayed when the system is "Ready" (ex. THE PETERSON'S).
- To programme alpha descriptors, enter Programming mode, then press #93 to display "ZONE PROG?"
 - Press 0 (NO) twice to display "ALPHA PROG?"
 - Press 1 to enter ALPHA PROGRAMMING mode. There are 6 sub-menu selections that will be displayed one at a time. Press 1 to select the mode desired. Press 0 to display the next mode available. The alpha menu selections are:
 - ZONE DESCRIP?** for entering zone descriptors.
 - DEFAULT SCREEN?** for creating custom message; displayed when system ready.
 - CUSTOM WORD?** for creating custom words for use in descriptors.
 - PART DESCRIP?** for creating 4-character partition names.
 - EXIT EDIT MODE?** to exit Alpha Programming
 - Refer to the sections that follow for adding alpha descriptors.

Zone Descriptors

1. Select ZONE DESCRIPTOR mode.

The keypad keys perform the following functions:

- [3] Scrolls both alphabet and actual words in ascending alphabetical order.
- [1] Scrolls both alphabet and actual words in descending alphabetical order.
- [2] Adds or removes an "s" or " 's " to a vocabulary word.
- [6] Switches between alphabet and actual word list; used to accept entries.
- [8] Saves the zone description in the system's memory.
- [#] # plus zone number displays the description for that zone.

2. Enter the zone number to which you want to assign a descriptor.

Ex. Key *001 to begin entering the description for zone 1, (key *002 for zone 2, *003 for zone 3 etc.). The following will be displayed: * ZN 001 A

Note that the first letter of the alphabet appears after the zone number, and that the zone number is automatically included with the description.

3. Enter the descriptor for that zone.

Use one of two methods as follows:

(assume, for example that the desired description for zone 1 is BACK DOOR)

- a. Press [#] followed by the 3 digit number of the first word from the fixed dictionary shown later in this section (e.g., [0][1][3] for BACK).
Press [6] in order to accept the word and proceed, or press [8] to store the complete descriptor and exit, **or...**
- b. Select the first letter of the desired description (note that "A" is already displayed). Use the [3] key to advance through the alphabet and the [1] key to go backward.
Press the [3] key repeatedly until "B" appears (press [1] to go backwards if you happen to pass it), then press key [6] to display the first available word beginning with B.
Press the [3] key repeatedly to advance through the available words until the word BACK is displayed.



To add an "s" or " 's," if you need to, press the [2] key. The first depression adds an "s," the second depression adds an " 's," the third depression displays no character (to erase the character), the fourth depression adds an "s," etc.

4. Accept the word.

To accept the word, press the [6] key, which switches back to alphabet list for the next word, or press [8] to store the complete descriptor and exit.

5. Select the next word.

For selection of the next word (DOOR), repeat step 3a (word #057) or 3b, but selecting the word "DOOR".

To accept the word, press the [6] key, which again switches back to alphabet list.

6. Store the descriptor.

When all desired words have been entered, press key [8] to store the description in memory.

7. To review the zone descriptors, key [#] plus zone number (e.g., #01).

To edit zone descriptors, key [*] plus zone number (e.g., *01)

8. Exit zone description mode: enter 00.

Custom Words

Up to 20 installer-defined words can be added to the built-in vocabulary. Each of the 20 "words" can actually consist of several words, but bear in mind that a maximum of 10 characters can be used for each word string.

1. Select CUSTOM WORD mode.

The keys perform the following functions:

- [3] Advances through alphabet in ascending order.
- [1] Advances through alphabet in descending order.
- [6] Selects desired letter; moves the cursor 1 space right.
- [4] Moves the cursor one space to the left.
- [7] Inserts a space at the cursor location, erasing any character at that location.
- [8] Saves the new word in the system's memory.
- [*] Returns to description entry mode.

2. **Enter the custom word number** 01-20 you want to create.
For example, if you are creating the first word (or word string), enter 01; when creating the second word, enter 02, and so on. A cursor now appears at the beginning of the second line.
3. **Type the word** using one of two methods as follows:
 - a. Press the [#] key, followed by the two digit entry for the first letter you would like to display (e.g., [6][5] for "A"). When the desired character appears, press the [6] key to select it. The cursor will then move to the right, in position for the next character. Press [#] plus the two digit entry for the next letter of the word.
OR...
 - b. Use the [3] key to advance through the list of symbols, numbers, and letters. Use the [1] key to move back through the list.
When you have reached the desired character, press the [6] key to select it. The cursor will then move to the right, in position for the next character.
4. **Repeat step 3 to create the desired custom word (or words).**
Use the [4] key to move the cursor to the left if necessary,
Use the [7] key to enter a blank (or to erase an existing character).
Each word or word string cannot exceed 10 characters.
5. **Save the word by pressing the [8] key.**
This will return you to the CUSTOM WORD? display. The custom word (or string of words) will be automatically added to the built-in vocabulary at the end of the group of words beginning with the same letter.
Custom words are retrieved as word numbers 250 to 269 for words 1 to 20 respectively, when using method 3a to enter alpha descriptors.
When using method 3b, each word will be found at the end of the group of words that begin with the same letter as it does.
6. **Repeat steps 2 through 6 to create up to 19 additional custom words (or word strings).**
7. **Exit Custom Word Mode** by entering 00 at the custom word prompt.

Partition Descriptors

1. Select "Part DESCRIPT." mode. The system asks for the partition number. Enter the number 1-8.
2. Follow the same procedure as for CUSTOM WORDS, except that partition descriptors are limited to four (4) characters (ex. WHSE for warehouse).

Custom Message Display (Installer's Message)

Normally, when the system is in the disarmed state, the following display is present on the keypad.

<p>****DISARMED**** READY TO ARM</p>
--

Part or all of the above message can be modified to create a custom installer message for each partition. For example, ****DISARMED**** on the first line or READY TO ARM on the second line could be replaced by the installation company name or phone number for service. Note that there are only 16 character spaces on each of the two lines. To create a custom display message, proceed as follows:

1. **Select DEFAULT SCREEN mode.** Enter the partition number for this message. Press [*] to accept entry.
A cursor will be present at the extreme left of the first line (over the first "star"). The [6] key is used to move the cursor to the right and the [4] key to move the cursor to the left. Key [7] may be used to insert spaces or erase existing characters.
2. **Create the message.** To replace READY TO ARM with the message SERVICE: 424-0177, proceed as follows:
Press the [6] key to move the cursor to the right, and continue until the cursor is positioned over the first location on the second line.
Press the [3] key to advance through the alphabet to the first desired character (in this case, "S"). Use the [1] key to go backward, when necessary. When the desired character is reached, press [6].
The cursor will then move to the next position, ready for entry of the next character (in this example, "E"). When the cursor reaches a position over an existing character, pressing the [3] or [1] key will advance or back up from that character in the alphabet.
Repeat until all characters in the message have been entered.
3. **Save the message.**
Store the new display message in memory by pressing the [8] key.
4. **The system will ask for a new partition number.**
Enter 0 to quit or 1-8 for a new partition number.

ALPHA DESCRIPTOR VOCABULARY

(For Entering Alpha Descriptors. To select a word, press [#] followed by the word's 3-digit number.)

NOTE: This vocabulary is not to be used for relay voice descriptors. See Relay Voice Descriptors later in this section when programming relay voice descriptors.

000 (Word Space)	• 052 DETECTOR	102 INTERIOR	151 POLICE	202 TRANSMITTER
• 001 AIR	• 053 DINING	103 INTRUSION	152 POOL	203 TRAP
• 002 ALARM	054 DISCRIMINATOR		• 153 POWER	
003 ALCOVE	055 DISPLAY	104 JEWELRY		204 ULTRA
004 ALLEY	056 DOCK	• 105 KITCHEN	154 QUAD	• 205 UP
005 AMBUSH	• 057 DOOR			• 206 UPPER
• 006 AREA	058 DORMER	• 106 LAUNDRY	155 RADIO	• 207 UPSTAIRS
• 007 APARTMENT	• 059 DOWN	• 107 LEFT	• 156 REAR	• 208 UTILITY
008 ART	• 060 DOWNSTAIRS	108 LEVEL	157 RECREATION	209 VALVE
• 009 ATTIC	061 DRAWER	• 109 LIBRARY	158 REFRIG	210 VAULT
010 AUDIO	• 062 DRIVEWAY	• 110 LIGHT	159 REFRIGERATION	211 VIBRATION
011 AUXILIARY	063 DRUG	111 LINE	160 RF	212 VOLTAGE
	• 064 DUCT	112 LIQUOR	• 161 RIGHT	
• 012 BABY		• 113 LIVING	• 162 ROOM	213 WALL
• 013 BACK	• 065 EAST	• 114 LOADING	163 ROOF	214 WAREHOUSE
• 014 BAR	066 ELECTRIC	115 LOCK		215 WASH
015 BARN	067 EMERGENCY	116 LOOP	164 SAFE	• 216 WEST
• 016 BASEMENT	068 ENTRY	117 LOW	165 SCREEN	• 217 WINDOW
• 017 BATHROOM	• 069 EQUIPMENT	• 118 LOWER	166 SENSOR	218 WINE
• 018 BED	070 EXECUTIVE		• 167 SERVICE	• 219 WING
• 019 BEDROOM	• 071 EXIT	• 119 MACHINE	• 168 SHED	220 WIRELESS
020 BELL	072 EXTERIOR	120 MAGNETIC	169 SHOCK	221 WORK
• 021 BLOWER		121 MAIDS	• 170 SHOP	
• 022 BOILER	• 073 FACTORY	122 MAIN	171 SHORT	222 XMITTER
023 BOTTOM	074 FAILURE	• 123 MASTER	172 SHOW	
024 BOX	075 FAMILY	124 MAT	• 173 SIDE	223 YARD
025 BREAK	• 076 FATHERS	• 125 MEDICAL	174 SKYLIGHT	
• 026 BUILDING	• 077 FENCE	126 MEDICINE	175 SLIDING	224 ZONE (No.)
027 BURNER	078 FILE	127 MICROWAVE	• 176 SMOKE	• 225 ZONE
	• 079 FIRE	128 MONEY	177 SONIC	
028 CABINET	• 080 FLOOR	129 MONITOR	• 178 SONS	226 0
• 029 CALL	081 FLOW	• 130 MOTHERS	• 179 SOUTH	227 1
030 CAMERA	082 FOIL	• 131 MOTION	180 SPRINKLER	228 1ST
031 CAR	• 083 FOYER	132 MOTOR	181 STAMP	229 2
032 CASE	084 FREEZER	133 MUD	• 182 STATION	230 2ND
033 CASH	• 085 FRONT		183 STEREO	231 3
034 CCTV	086 FUR	• 134 NORTH	184 STORE	232 3RD
035 CEILING	087 FURNACE	135 NURSERY	• 185 STORAGE	233 4
036 CELLAR			186 STORY	234 4TH
• 037 CENTRAL	088 GALLERY	• 136 OFFICE	187 STRESS	235 5
038 CIRCUIT	• 089 GARAGE	137 OIL	188 STRIKE	236 5TH
039 CLIP	• 090 GAS	• 138 OPEN	189 SUMP	237 6
• 040 CLOSED	091 GATE	139 OPENING	190 SUPERVISED	238 6TH
041 COIN	• 092 GLASS	• 140 OUTSIDE	191 SUPERVISION	239 7
042 COLD	093 GUEST	141 OVERFLOW	192 SWIMMING	240 7TH
043 COATROOM	094 GUN	142 OVERHEAD	193 SWITCH	241 8
044 COLLECTION				242 8TH
045 COMBUSTION	• 095 HALL	143 PAINTING	194 TAMPER	243 9
• 046 COMPUTER	• 096 HEAT	• 144 PANIC	195 TAPE	244 9TH
047 CONTACT	097 HIGH	145 PASSIVE	196 TELCO	250 Custom Word 1
	098 HOLDUP	• 146 PATIO	197 TELEPHONE	to
• 048 DAUGHTERS	099 HOUSE	147 PERIMETER	198 TELLER	269 Custom Word 20
049 DELAYED		• 148 PHONE	• 199 TEMPERATURE	
• 050 DEN	100 INFRARED	149 PHOTO	200 THERMOSTAT	
051 DESK	• 101 INSIDE	150 POINT	• 201 TOOL	

CHARACTER (ASCII) CHART (For Adding Custom Words)

32 (space)	42 *	52 4	62 >	72 H	82 R
33 !	43 +	53 5	63 ?	73 I	83 S
34 "	44 ,	54 6	64 @	74 J	84 T
35 #	45 -	55 7	65 A	75 K	85 U
36 \$	46 .	56 8	66 B	76 L	86 V
37 %	47 /	57 9	67 C	77 M	87 W
38 &	48 0	58 :	68 D	78 N	88 X
39 '	49 1	59 ;	69 E	79 O	89 Y
40 (50 2	60 <	70 F	80 P	90 Z
41)	51 3	61 =	71 G	81 Q	

Notes: This factory-provided vocabulary of words is subject to change.

Bulleted words in **bold face type** are those that are also available for use by the 4286 VIP module. If using a VIP module, and words other than these are selected for alpha descriptors, the voice module will not provide annunciation of those words.

Device Programming

This menu is used to programme keypads, receivers and relay modules.

From Data Field Programming mode, press **#93** to display "ZONE PROG?". Press **0** repeatedly to display "DEVICE PROG?".

PROMPT	EXPLANATION
<div>DEVICE PROG?</div> <div>1 = YES 0 = NO 0</div>	Press 1 to enter DEVICE PROGRAMMING mode.
<div>DEVICE ADDRESS</div> <div>01-30, 00=QUIT</div>	<p>The device address identifies the device to the control. Enter the 2-digit device address number to match the device's physical address setting (01-30). Press * to accept entry.</p> <p>Note: Device Address 04 must be used for the 4286 Voice Module, if one is utilized. If not, it can be used for another device type.</p>
<div>DEVICE TYPE</div> <div>00</div>	<p>Select the type of addressable device as follows:</p> <ul style="list-style-type: none"> 00 = device not used 01 = keypad (6139) 03 = RF receiver (4281/5881/5882) 04 = output relay/trigger module (4204) 05 = telephone module (4286) 06 = LRR or Contact ID on keypad bus 09 = Vista Gateway <p>Press * to accept entry.</p>
<div>01 CONSOLE PART.</div> <div>00</div>	If device type 01 was selected, this prompt will appear. Enter the addressable device's default partition number (01 to maximum number of partitions programmed for system in field 2*00). This is the primary partition for which the device is intended to be used. Enter "9" to make this "Master" keypad for the system. Press * .
<div>01 KEYPAD GBL</div> <div>1=YES 0=NO</div>	If device type 01 was selected, this prompt will appear. Press 1 to enable this particular keypad to execute global arm/disarm functions.
<div>03 RF EXPANDER</div> <div>HOUSE ID 00</div>	If device type 03 is selected, this prompt will appear. Enter the 2-digit House ID (00-31). This is required for 5700 series systems only, or if using a wireless keypad (5827/5827BD) with a 5800 series system.
<div>04 MODULE PART.</div>	If device type 05, telephone module was selected, enter the partition number 1-8 in which the telephone module is located. Press * .



Device Address **00** is always set as an alpha keypad assigned to Partition 1 with no sounder suppression options.

Relay Programming

The system supports up to 32 X-10 and/or relay outputs, plus up to 64 polling loop trigger/relay outputs. Once a device is programmed, there is no distinction between an X-10, triggers, or relay output device.

Relays can be used to perform different functions and actions. Each relay must be programmed to begin one of four types of ACTIONS at a designated START event, and end that ACTION at a designated STOP event. The options used to start and stop these devices are described below, followed by the actual screen prompts and available entries.

The letter(s) in parentheses after each function described below, such as (A) after ACTION, are those that appear in the various summary displays of programmed data during programming.

ACTION (A)

The "ACTION" of the device is how the device will respond when it is activated by the "START" programming. There are four different choices of actions:

- ACTIVATE for 2 SECONDS and then reset.
- ACTIVATE and REMAIN ACTIVATED until stopped by some other event.
- PULSE ON and OFF until stopped by some other event.
- NO RESPONSE when the device is not used.

START (STT)

The "START" programming determines when and under what conditions the device will be activated. The following START options are available:

1) EVENT (EV) is the condition (Alarm, Fault, Trouble) that must occur to a zone or group of zones (zone list) in order to activate the device. These conditions apply *only* when a zone list is used. The different choices for "EVENT" are listed below and in "Programming Output Devices" in the section that follows.

- ALARM Relay action begins upon any alarm in an assigned zone in the zone list.
- FAULT Relay action begins upon any opening (or short) of an assigned zone in the zone list.
- TROUBLE Relay action begins upon any trouble condition on an assigned zone in the zone list.
- NO RESPONSE Relay action is not dependent upon one of the above events.

2) ZONE LIST (ZL) is a group of zones to which the "EVENT" applies in order to activate a particular device. Note that there are a total of 15 zone lists that can be programmed in field *81 mode. When the selected EVENT (Alarm, Fault or Trouble) occurs in **any** zone in the selected "Start" ZONE LIST (01-15), activation of the selected device will START.

3) ZONE TYPE/SYSTEM OPERATION (ZT). If all zones to be used to start this device have the same response type, and there are no other zones of this type which are **not** to activate this device, then "ZONE TYPE" may be used instead of using a "ZONE LIST" and "EVENT" to activate the device.

If a specific "ZONE TYPE" is chosen, any zone of that response type going into alarm, trouble, or fault will cause the device to activate as selected in "ACTION." If the same "ZONE TYPE" is also chosen for the STOP programming, any zone of that type that *restores* will de-activate the device.

If a System Operation, such as "DISARMING" or "ANY FIRE ALARM," is to activate the device, the appropriate choice would also be entered under the "ZONE TYPE" option. The selected operation will cause the device to activate as selected in "ACTION." **The "ZONE TYPE" option functions independently of the "EVENT/ZONE LIST" combination.** The different choices for "ZONE TYPE" and "SYSTEM OPERATION" are listed in "Programming Output Devices" later in this section, and in the Programming Form.



The "ZONE TYPE" option functions independently of the "EVENT/ZONE LIST" combination.

4) PARTITION No. (P). The device's "Start" ZONE TYPE/SYSTEM OPERATION may be limited to an occurrence on either one partition (1-8) or any partition (0).

STOP (STP):

The "STOP" programming determines when and under what conditions the device will be de-activated. The following options are available:

1) RESTORE ZONE LIST (ZL). If a "ZONE LIST" is used as the "Stop" event, the device will de-activate when **all** the zones in that list restore from a previous fault, trouble, or alarm condition. This will occur regardless of what is programmed to "START" the device; therefore, a "RESTORE ZONE LIST" would normally only be used when a "ZONE LIST" is used to start the device.

2) ZONE TYPE/SYSTEM OPERATION (ZT). Instead of using a "RESTORE ZONE LIST", a specific zone (response) type or system operation action can be selected to de-activate the device.

If a specific "ZONE TYPE" is chosen, any zone of that response type that restores from a previous alarm, trouble, or fault condition will cause the device to de-activate.

If a "SYSTEM OPERATION" is chosen, that operation will cause the device to de-activate. The different choices for "ZONE TYPE" and "SYSTEM OPERATION" are listed in "Programming Output Devices" later in this section, and in the Programming Form.

3) PARTITION No. (P). The device's "Stop" Zone Type/System Operation may be limited to an occurrence on either one partition (1-8) or any partition (0).

Programming Output Devices

From data field programming mode, press **#93** to display the "ZONE PROG?" prompt. Press **0** (NO) to each menu option until the "RELAY PROG" prompt appears. Press **1** (YES).

While in this mode, press ***** to advance to next screen. Press **#** to backup to the previous screen.

PROMPT	EXPLANATION
ENTER RELAY NO. (00=Quit) 01	Enter the relay (output device) identification number 01-96 . This is a reference number only, used for identification purposes. The actual module address and relay number is programmed in the last two prompts. Press * .
01 A EV ZL ZT P STT 0 0 00 00 0	The keypad will display a summary START screen. Press * to continue.
ENTER RELAY NO. (00=Quit) 01	Enter the relay (output device) identification number 01-96 . This is a reference number only, used for identification purposes. The actual module address and relay number is programmed in the last two prompts. Press * .
01 A ZL ZT P STOP 0 00 00 0	The keypad will display a summary STOP screen. Press * to continue.
01 Relay Action No Response	The Relay Action is the way in which the relay will respond when activated by the "start" event. Enter the desired action for this relay as follows: 0 =not used; 1 =closed for 2 secs.; 2 =stay closed; 3 =pulse on/off
01 Start Event Not used	A relay may be activated either by an Event used in conjunction with a Zone List, or by a Zone Type/System Operation. If using an Event/Zone List combination, enter the event code as follows: 0 =not used; 1 =alarm; 2 =fault; 3 =trouble; 4 =restore If not using a Zone List to activate the relay, enter 0 . Press * to continue.
01 Start: Zn LIST No list	A Zone List is a set of zones that can be used to initiate the start or stop relay action. If a zone list is being used to start this relay action, enter the Zone List number 01-15 . If a zone list is not being used, enter 00 . Press * to continue.
01 Start: Zn Typ	A Zone Type/System Operation can be used instead of an Event/Zone List combination to start the relay action. If a Zone Type/System Operation is being used, enter the 2-digit code as listed below. Press * to continue.

Choices for Start/Stop Zone Types and System Operations:

00 = No Response (Not Used)	23 = No Alarm Response	41 = AC Power Fail
01 = Entry/Exit #1	26 = Verified Alarm	42 = System Battery Low
02 = Entry/exit #2	27 = Access Point	43 = Communication failure
03 = Perimeter	28 = MLB Supervision	44 = RF Low Battery
04 = Interior Follower	29 = Momentary Exit	45 = Polling Loop Failure
05 = Trouble Day/Alarm Night	31 = End of Exit Time	51 = RF Receiver Failure
06 = 24-Hr. Silent	32 = Start of Entry Time	52 = Kissoff
07 = 24-Hr. Audible	33 = Any Burglary Alarm	54 = Fire Zone Reset
08 = 24-Hr. Auxiliary	34 = Code + [#] + 71 Key Entry	55 = Disarm + 1 Minute
09 = Fire Alarm or Trouble	35 = Code + [#] + 72 Key Entry	56 = XX Minutes (enter XX in field 1*74) *
10 = Interior W/Delay	36 = At Bell Timeout **	57 = YY Seconds (enter YY in field 1*75) *
19 = 24-Hour Trouble	37 = 2 Times Bell Timeout **	58 = Duress
20 = Arming-STAY	38 = Chime	60 = Audio/Video Alarm Verification (must be selected for both START and STOP operation)
21 = Arming-AWAY	39 = Fire Alarm	
22 = Disarming (Code + Off)	40 = Bypassing	

* Stop condition only

** Or at disarming, whichever occurs earlier



If using options 56 and/or 57 (usually as the STOP Zone Type), data fields 1*74 and 1*75 for the respective relay timeouts for minutes and seconds must be programmed.

PROMPT	EXPLANATION
01 Start Part	If the starting event will be limited to occurring on a specific partition, enter the partition number (1-8) in which the start event will occur. Enter 0 for any partition. Press * to continue.
01 Stop: Zn LIST No list	If a zone list is being used to stop this relay action, enter the zone list number 01-15. The restore of all zone s on the Zone List will stop the relay. If a zone list is not being used, enter 00. Press *.
01 Stop: Zn Typ	If a Zone Type/System Operation is being used to stop the relay action, enter the 2-digit code as listed in the start Zone Type/System Operation prompt paragraph. Press * to continue.
01 Stop Part	This is the partition to which the stop condition will be limited. Enter 0 for any partition. Enter 1-8 for specific partition number. Press *.
Relay Group	Relays may be grouped for common activation by time driven events (commands 06-10--see SECTION 7: <i>Scheduling Options</i> for more information). Enter 0 (no group) or 1-8 for a specific group number. Press * to continue.
Restriction 1=yes 0=no	The system may have some devices that are not intended to be under end user control, such as relays activating fire doors or machinery. Enter 1 if the end user will be restricted from accessing this relay. Press * to continue.
Relay Type	Enter 0 for polling loop trigger or relay. Enter 1 for 4204 relay outputs. Enter 2 for Powerline Carrier devices. Press * to continue.
V-PLEX ZONE #	For polling loop trigger outputs (4208-4/4101SN), enter the protection zone number (010-128) linked to each output, if used. If not using a protection zone on these modules, enter the relay zone number (601-696). Be sure to enroll the module's serial number (see Zone Programming ZONE NUMBER prompt). Press * to continue.
ECP ADDRESS	For relay module (4204) outputs, enter the actual relay module's address (01-15) as set by its DIP switches.
MODULE RELAY #	For 4204 relay outputs, enter the specific relay number on that module (1-4). Press * to continue.
House Code	For Powerline Carrier devices, enter the numerical equivalent of the House Code of the device as follows: A=00 E=04 I=08 M=12 B=01 F=05 J=09 N=13 C=02 G=06 K=10 O=14 D=03 H=07 L=11 P=15
Unit Code	Enter the numerical unit code of the Powerline Carrier device (00-31). Press * to continue. The keypad will display the Start and Stop summary screens again. Press * to continue. When all relays have been programmed, enter 00 at the "ENTER RELAY NO." prompt.

If defining a Zone List, continue to the next procedure in this section. If not, enter 00 + * at the next two prompts. Then enter *99 to exit programming completely. After exiting, enter the [Installer Code] + OFF to cancel the system's settling delay.

If supervision of the relay is desired, enter a response type for the relay's corresponding supervisory zone. This is equal to 6 + 2-digit relay number. For example, if you are programming relay no. 1, the relay's supervisory zone would be 601. Programme this zone for response type 19 (24 hr. trouble) or 05 (trouble by day, alarm by night) in #93 Programming Mode.

Zone List Programming

After all relays have been programmed, upon entering **00** at the "ENTER RELAY NO." prompt, you will be asked to enter a Zone List. If a Zone List number was used to start/stop a relay, you must define the zones belonging to that list.

PROMPT	EXPLANATION
Enter Zone LIST 00=QUIT 00	Enter the zone list number 01-15 . Enter 00 to quit.
001 Enter Zn Num. 000=QUIT 000	Using three-digit entries, enter each zone to be included in this zone list. Press * after each zone number is entered. When all zones have been entered, enter 00, then press *
001 Del Zn LIST? 0=No 1=Yes 0	Enter 0 to save the zone list entered. Enter 1 to delete that zone list.
001 Delete Zone? 0=No 1=Yes 0	Enter 1 to delete one or more zones in that zone list. Enter 0 if no changes are necessary. If 1 is entered, the next screen will appear, otherwise the "Enter Zone List" prompt will reappear.
001 Zn to Delete? 000=QUIT 000	Enter each zone number to be deleted from the zone list, pressing * after each number.
View Zn LIST 00=QUIT 00	This will appear if 00 is pressed at the ENTER ZONE LIST prompt. Enter the zone list number that you wish to view. Press * to continue.
XX ASSIGNED ZONE 000=QUIT 000	Press * to scroll through all zones in that list. Enter 00 + * to quit. Press *99 to exit programme mode or continue to the next procedure in this section to programme Relay Voice Descriptors. Upon exiting programme mode, enter the [Installer Code] + OFF to cancel the system's settling delay.

Relay Voice Descriptors

If using the 4286 VIP Module, voice descriptors can be programmed for each of the 96 relays/Powerline Carrier/output trigger devices used in the system. These descriptors are announced by the voice module when accessing the relays via the # 70 relay access mode via telephone.

Each voice descriptor can consist of up to 3 words selected from the relay voice descriptor vocabulary list (found later in this section).



The index numbers from this vocabulary list are to be used for relay voice descriptors only. For normal system voice annunciation (eg. alarms, troubles, status), use the highlighted words in the alpha vocabulary list found in the alpha programming section.

To enter relay voice descriptors press **#93** from data field programming mode to display the "ZONE PROG?" prompt. Press **0** (NO) to each menu option until the "RLY VOICE DESCR?" prompt is displayed. Follow the instructions below. While in this mode, press * to advance to next screen. Press #to backup to previous screen.

PROMPT	EXPLANATION
RLY VOICE DESCR? 0=No 1=Yes 0	Press 1 to programme voice descriptors for relays.
ENTER RELAY NO 00=QUIT 01	Enter the 2-digit relay/X-10 module/trigger number (01-96) for the relay desired, or enter 00 to quit relay voice descriptor programming mode. Press *.

PROMPT	EXPLANATION
01 ENTER DESC d1	From the relay voice descriptor vocabulary list, enter the 3-digit index number for the first word of the relay descriptor phrase. Press *.
01 ENTER DESC d2	From the relay voice descriptor vocabulary list, enter the 3-digit index number for the second word of the relay descriptor phrase. If second word is not desired, press 000 . Press *.
01 ENTER DESC d3	From the relay voice descriptor vocabulary list, enter the 3-digit index number for the third word of the relay descriptor phrase. If third word is not desired, press 000 . Press * to accept entry. The ENTER RELAY NO. prompt appears. Enter the next relay to be programmed. When all output devices have been programmed, enter 00 to quit. Enter *99 to exit programme mode. Enter the [Installer Code] + OFF to cancel the system's settling delay.

Relay Voice Descriptors and Custom Word Substitutes Vocabulary

Word	Index	Word	Index	Word	Index	Word	Index	Word	Index
Air	116	Daughter's	208	Foyer	137	North	146	Sixth	219
Alarm	255	Den	052	Front	087	Not	012	Smoke	024
And	067	Detector	128	Garage	023	Off	011	Son's	223
Apartment	117	Device	060	Gas	138	Office	147	South	155
Appliances	161	Dim	163	Glass	139	On	058	Stairs	006
Area	118	Dining	031	Hall	050	One	070	Station	156
Attic	119	Door	016	Heat	010	Open	148	Storage	157
Baby	120	Down	008	Inside	209	Outside	210	Sun	154
Back	121	Downstairs	184	Kitchen	022	Panic	013	System	062
Bar	122	Driveway	130	Laundry	140	Partition	090	Temperature	158
Basement	021	Duct	131	Left	027	Patio	149	Third	159
Bathroom	051	East	132	Library	141	Phone	061	Three	072
Battery	053	Eight	077	Light	019	Power	063	Tool	213
Bed	092	Eighth	221	Living	030	Pump	166	Two	071
Bedroom	015	Equipment	133	Loading	142	Rear	088	Up	025
Blower	123	Exit	004	Lower	094	Right	028	Upper	187
Boiler	124	Factory	134	Machine	143	Room	018	Upstairs	183
Bright	162	Father's	211	Master	144	's	007	Utility	185
Building	125	Fence	135	Medical	014	Second	056	West	215
Burglary	039	Fifth	218	Mother's	212	Service	150	Window	017
Call	009	Fire	040	Motion	145	Seven	076	Wing	216
Central	089	First	136	Nine	078	Seventh	220	Zero	069
Chime	054	Five	074	Ninth	222	Shed	151	Zone	002
Closed	126	Floor	029	No	165	Shop	152		
Computer	127	Four	073			Side	153		
Console	066	Fourth	217			Six	075		

Custom Word Substitutes for VIP Module Annunciation

A substitute word can be programmed for each of the 20 custom words used in your alpha zone descriptions. This substitute word will be announced by the VIP module in place of the custom word that is displayed on the alpha keypad. For example, an alarm display of "John's Bedroom" could be announced as "Son's Bedroom," since there is no annunciation for the custom word "John." Note that if a substitute word is not assigned, the VIP module will not annunciate the zone descriptor at all, but will only annunciate the zone number.

To enter custom words substitutes press **#93** from data field programming mode to display the "ZONE PROG?" prompt. Press **0** (NO) to each menu option until the "CUSTOM INDEX " prompt is displayed.

PROMPT	EXPLANATION
CUSTOM INDEX ? 0=No 1=Yes 0	Enter 1 at this prompt.

PROMPT	EXPLANATION
CUSTOM WORD NO 00=QUIT 01	Enter the custom word number (01--20) for which a voice substitute is desired. Enter 00 to quit this programming mode. Press * to accept entry.
01 ENTER INDEX #	Enter the 3-digit substitute word index number from the relay voice descriptor and custom word substitutes vocabulary list found in the Relay Voice Descriptors section. Press *. The "CUSTOM WORD NO." prompt will be displayed. Enter the next custom word number to be substituted or enter 00 to quit.

RF Serial Number Clear Mode

This mode may be used in the event that an undesired transmitter has been enrolled during sequential enrolling, causing each subsequent serial number to be assigned to an incorrect zone. Performing this operation will delete all RF serial numbers, leaving all other zone information intact. You may then return to Sequential mode to re-enroll wireless transmitters.



The RF Serial Number Clear mode will not delete polling loop serial numbers.

To clear all RF wireless serial numbers, do the following:

1. Enter programming mode: installer code + 8 0 0 0.
2. From programming mode, press #93 to display the "ZONE PROG?" prompt.
3. Press 0 (NO) repeatedly until the "CLEAR RF SERIAL #?" prompt appears.

PROMPT	EXPLANATION
CLEAR RF SERIAL#? 0=No 1=Yes 0	Enter "1" to clear all RF wireless serial numbers. The "ARE YOU SURE?" prompt is displayed as follows:
ARE YOU SURE? 0=No 1=Yes 0	Enter "1" to clear all RF serial numbers. Re-enter the Sequential mode to enroll wireless transmitters.

Scheduling Options

Introduction To Scheduling

General

The scheduling features allow certain operations to be automated, such as arming, disarming, bypassing of zones, and activating relay outputs.

The system uses time windows (a programmed period of time with a start and stop time) for defining open/close schedules, holiday schedules, user-defined temporary schedules, and access schedules for users.

Scheduled events are programmed by user-friendly menu modes of programming (#80, #81, #83, and #93 modes), explained in detail in this section. These menus take you step by step through the options.

Auto Arming

The system can automatically arm (AWAY Mode) a partition at the end of a pre-determined closing (arming) time window.

Auto Arming can be delayed three ways: by use of the Auto-Arm Delay, the Auto-Arm Warning, or by manually extending the closing (arming) time window with a keypad command.

The system can also automatically bypass any open zones when auto arming.

Auto-Arm Delay

Auto-Arm Delay provides a delay (grace period) before auto arming. It starts at the end of the closing time window.

The delay is set in 4-minute increments, up to 56 minutes in partition-specific programme field 2*05. At the expiration of this delay, the Auto-Arm Warning will start.

Auto-Arm Warning

The Auto-Arm Warning causes the keypad sounder to warn the user of an impending Auto-Arm.

The warning can be set from 1 to 15 minutes prior to the arming in partition-specific programme field 2*06. During this period the keypad beeps every 15 seconds and displays "AUTO ARM ALERT." During the last 60 seconds, the keypads beep every 5 seconds.

The panel arms at the conclusion of the Auto-Arm Warning period.

Force Arm

The Force Arm option causes the panel to attempt to bypass any faulted zones prior to auto arming (panel performs a force-arm).

This option is set in partition-specific programme field 2*08.

Extend Closing Window

A user can manually delay the arm (closing) time window by 1 or 2 hours. This is done by entering a keypad command (User Code + #82), which then prompts the user to enter the desired extension time of 1 or 2.

This feature is useful if a user must stay on the premises later than usual.

The Auto-Arm delay and warning periods begin at the end of the extension.

Auto Disarming

The system can automatically disarm a partition at the end of a pre-determined opening (disarm) time window.

The disarming time can be delayed by using the Auto-Disarm Delay feature.

Disarm Delay

Auto-Disarm Delay provides a delay before auto disarming. This delay is added to the end of the disarm time window.

The delay is set in 4-minute increments, up to 56 minutes, in partition-specific programme field 2*07.

Restrict Disarming

This option allows disarming by users only during the disarm time window and during the arming time window (in case user needs to re-enter premises after manually arming the partition).

This option is set in partition-specific field 2*10. If field 2*10 is set, we highly recommend setting field 2*11, as well. This field allows the partition to be disarmed outside the arm/disarm time windows only if the partition is in alarm.

Exception Reports

This option allows the reporting of openings and closings to the central station only if the arming and disarming occurs outside of the predetermined opening and closing time windows.

This option is set in partition-specific field 2*09.

The system can be programmed to send No Opening and No Closing reports if the partition is not armed or disarmed by the end of the corresponding time window.

Time-Driven Events

By using the time windows, the system can automatically activate and de-activate relays at predetermined times to turn lights or other devices on and off.

The Time-Driven events can be activated at different times in relation to the time window:

- At the beginning of a time window
- At the end of a time window
- During a time window (on at beginning of window, off at end)
- At both the beginning and end of the time window (e.g., to sound a buzzer at the beginning and end of a coffee break)

The system can perform the same actions on a daily basis, or can be made to perform an action only once (e.g., turn on the porch light this Wednesday at 8:00 PM).

The system also provides up to 20 programmable “timers” available to the end user for the purpose of activating output devices at preset times and on preset days.

Limitation of Access of Users by Time

A user’s access can be limited to a certain time period, during which he can perform system functions. Outside this time, that user’s code is inactive.

The system provides up to 8 access schedules, each consisting of two time windows (typically one for opening, one for closing) for each day of the week and two time windows for holidays.

The access schedules are programmed in the #80 Menu Mode, and enabled for a given user when that user’s access code is added to the system.

If a user tries to operate the system outside the schedule, the alpha keypad displays “Access Denied.”

Time Window Definitions

Scheduled events are based on time windows, which are simply periods of time during which an event may take place.

The system supports up to 20 time windows, each defined by a “Start” time and a “Stop” time.

The windows are shared by all 8 partitions, and are used when programming the various schedules (open/close, limitation of access), as well as for Time-Driven event control.

Scheduling Example

To understand scheduling, take, for example, a store that has the following hours:

Monday to Thursday	9am to 6pm
Friday	9am to 9pm
Saturday	10am to 4pm
Sunday	Closed
Holidays	Closed

Assume the owner desires the following time windows to allow time for employees to arm or disarm the system:

Monday to Thursday	Open (disarm)	8am to 9am
	Close (arm)	6pm to 6:30pm
Friday	Open (disarm)	8am to 9am
	Close (arm)	9pm to 9:30pm
Saturday	Open (disarm)	9am to 10am
	Close (arm)	4pm to 4:30pm
Sunday & Holidays	Closed	

To provide these schedules, the following five time windows need to be programmed:

Window	Start	Stop	Purpose
1	8am	9am	Monday-Friday open window
2	9am	10am	Saturday open window
3	4pm	4:30pm	Saturday close window
4	6pm	6:30pm	Monday-Thurs. close window
5	9pm	9:30pm	Friday close window

Using the *#80 Menu Mode* (described later in this section), the installer can programme open/close schedules by assigning each time window to a day of the week (windows are entered as 2-digit entries)

Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hol
Op/Ci	Op/Ci	Op/Ci	Op/Ci	Op/Ci	Op/Ci	Op/Ci	Op/Ci
01/04	01/04	01/04	01/04	01/05	02/03	00/00	00/00

NOTE: 00 is entered for those days on which the store is closed.

Employees can arm and disarm the system, when programmed, within the open and close time windows without causing a report to be sent to the central station (reporting by exception, field 2*09). The system can be programmed to automatically arm/disarm in case an employee fails to arm/disarm manually (auto-arm/auto-disarm).

Open/Close Definitions

General

The open/close scheduling is controlled by one of three schedules. Each schedule consists of one time window for openings and one time window for closings.

There are three types of schedules available: Daily, Holiday, and Temporary.

Daily Schedule

Each partition can have one daily schedule consisting of one opening window and one closing window per day.

Holiday Schedule

A holiday schedule overrides the regular daily schedule on selected holidays throughout the year.

The opening and closing windows are programmed in the daily schedule, but the holidays themselves are defined in *Holiday Schedule Programming* in the #80 Menu Mode.

Temporary Schedule

The temporary schedule provides a method for the end user to override the daily and holiday schedules. It consists of one opening window and one closing window for each day of the week. The schedule takes effect for up to one week, after which it is automatically deactivated.

This schedule is programmed using the #81 Temporary Schedule Menu Mode.

Additional Schedules

Additional opening and closing schedules can be programmed using the *Time-Driven Event Programming*. For example, a schedule for normal store openings/closings can be programmed with a daily open/close schedule, and another open/close schedule for a lunch hour can be programmed using the Time-Driven event schedule programming.

Refer to “Time-Driven Events” later in this section for detailed information.

Open/Close Reports by Exception

The system can help reduce communication traffic to the central station by using the Open/Close Reports by Exception feature. The Open/Close by Exception option suppresses these reports from being sent to the central station if an arm or disarm is done *within* the expected time window. Reports are only sent if the arm or disarm occurs outside the assigned time window.

The system keeps a record of *all* openings/closings in its event log.

If a disarming occurs during a closing window (for example, a person who arms the system forgets something and has to re-enter), the Opening report (although outside of the opening window) will not be sent (as long as that disarming occurs within the closing window).

This option is programmed in partition-specific programme field 2*09.

Example of Open/Close Exception Reporting & Scheduling

The following chart gives an example of how the Open/Close by Exception reporting works.

6:01PM	5:59AM	6AM	9AM	9:01AM	3:59PM	4PM	6PM	6:01PM	5:59AM
Early Opening reports are sent if system is manually disarmed before opening window begins. Early and Late Opening and Closing reports are programmable options in the Report Code Programming. They are not dependent on the programming of the Exception Reporting option.		<div>Opening Window</div> No reports are sent if system is disarmed during this time window. If an arming occurs, a Closing report is sent to the central station regardless of how the Exception Reporting option is set.		Auto-disarm delay begins. Auto-disarm occurs after delay (if auto-disarm is enabled). Missed Opening reports are sent if manual disarming has not occurred at expiration of opening window. Late Opening reports are sent if disarm occurs after the opening window expires. Early Closing reports are sent if manual arming occurs before the closing window begins. Missed Opening/Closing type reports are programmed in the Report Code Programming. The Exception Reporting option must be set for these to be sent.		<div>Closing Window</div> No reports are sent if system is armed* during this time window. * or disarmed if user needs to re-enter premises.		Auto-arm delay begins. Auto-arm warning begins. Auto-arm occurs after warning expires (if auto-arm is enabled). Missed Closing reports are sent if manual arming has not occurred at expiration of closing window. Late Closing reports are sent if system is manually armed after the closing window expires.	

Scheduling Menu Mode

The #80 Scheduling Menu Mode is used to programme most of the scheduling and timed-event options. Enter **Installer Code + [#] + [8] + [0]** from the normal operating mode. **NOTE:** Only users with an Installer or Master level user code may enter the #80 mode.

The following can be programmed while in this mode:

- time windows
- open/close schedules to each partition
- holiday schedules
- Time-Driven events (for system functions and relay activation)
- limitation of access schedules

Some scheduling features are programmed in Data Field Programming Mode (**Installer Code + 8 0 0 0**). Some features are programmed in the #93 Menu Mode. The general programming scheduling fields are listed below.

System-Wide Fields:	
*04	Enable Random Timers
1*74 –1*75	Relay timeout values
2*01-2*02	Summer Time options
2*11	Allow disarming outside window if alarm occurs
Partition-Specific fields:	
1*76	Access control relay for this partition
2*05	Auto-arm delay value
2*06	Auto-arm warning time
2*07	Auto-disarm delay value
2*08	Force-arm enable
2*09	Open/Close Reporting by Exception
2*10	Restrict disarm only during windows
#93 Menu Mode (System Group #3)	
Scheduling related report codes	

Event-driven options are programmed using *Relay Programming* in #93 Menu Mode. Relay activation can also be Time-Driven. Those options are programmed using the #80 Menu Mode. Refer to the *Time-Driven Event Programming* later in this section for the procedure.

Steps to Programme Scheduling Options

In order to use #80 Scheduling Menu Mode, use the worksheets to do the following:

1. Define time windows (up to 20)
2. Define the daily open/close schedules (one schedule per day, per partition)
3. Define the holidays to be used by the system (up to 16)
4. Define limitation of access times (up to 8 schedules)
5. Define the Time-Driven events (up to 20)

NOTE: Temporary schedules are programmed using #81 Menu Mode.

Use #80 Scheduling Menu Mode to perform the following functions:

6. Programme the time windows
7. Programme the open/close schedules
8. Programme the Time-Driven events
9. Programme the access schedules

Scheduling Menu Structure

To programme schedules, enter Scheduling Programme Mode enter the **Installer Code + [#] + [80]**. (Installer or Master level user code.)



Scheduling Programme Mode can be entered only when all partitions are disarmed.

There are 6 sections of scheduling menus accessed via #80. Entering 1 at a main menu prompt selects that menu section. Prompts for that scheduling feature then appear. Enter 0 to skip a section and display the next menu option.

PROMPT	EXPLANATION
Time Window ? 1 = YES 0 = NO 0	Upon entering Schedule Menu Mode, this prompt appears. Enter 1 to programme time windows. Refer to <i>Time Windows Programming</i> later in this section for detailed procedures. Enter 0 to move to the "O/C Schedules?" prompt.
O/C Schedules ? 1 = YES 0 = NO 0	Enter 1 to programme opening and closing schedules. Refer to <i>Open/Close Schedules Programming</i> later in this section for detailed procedures. Enter 0 to move to the "Holidays?" prompt.
Holidays ? 1 = YES 0 = NO 0	Enter 1 to programme holiday schedules. Refer to <i>Holiday Schedule Programming</i> later in this section for detailed procedures. Enter 0 to move to the "Timed Events?" prompt.
Timed Events ? 1 = YES 0 = NO 0	Enter 1 to programme timed events for relay outputs, additional schedules, and other system functions. Refer to <i>Time-Driven Event Programming</i> later in this section for detailed procedures. Enter 0 to move to the "Access Sched?" prompt.
Access Sched. ? 1 = YES 0 = NO 0	Enter 1 to programme access schedules. Refer to <i>Limitation of Access Schedules Programming</i> later in this section for detailed procedures. Enter 0 to move to the "Quit?" prompt.

PROMPT	EXPLANATION
<div>Quit ?</div> <div>1 = YES 0 = NO 0</div>	Enter 1 to quit #80 Scheduling Menu Mode and return to normal operating mode. Enter 0 to make any changes or review the scheduling programming options. If you press 0, the "Time Window?" prompt is displayed.

Time Windows

20 time windows are provided for use in open/close and access schedules, as well as for output controls, and are the basis of the scheduling system. These windows are shared among all 8 partitions. A time window must have a start and a stop time.

Time Window Number	Start Time (HH:MM)	Stop Time (HH:MM)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

The following worksheet will help you define time windows and scheduling aspects of this system before you programme them. Note that time windows **can** span midnight; for example, from 11 PM to 1 AM.

Time Window Number	Start Time (HH:MM)	Stop Time (HH:MM)
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Time Windows Programming

Enter Scheduling Mode by entering **Installer Code + [#] + [80]**. The keypad displays the Time Window ?.

PROMPT	EXPLANATION
<div>Time Window ?</div> <div>1 = YES 0 = NO 0</div>	Enter 1 at this main menu prompt to programme time windows.
<div>Time Window # ?</div> <div>01-20, 00 = Quit 01</div>	Enter the 2-digit time window number (01-20) to be programmed. Press [*] to accept the entry. Enter 00 + [*] at the "Time Window #?" prompt to quit time window programming and display the "Quit ?" prompt.
<div>01 TIME WINDOW</div> <div>00:00AM 00:00AM</div>	If you entered a time window number, the cursor is now positioned on the tens of hours digit of the start of window entry. Enter the desired start of window hour and press [*]. The cursor moves to the minutes position. Enter the desired minutes and press [*]. Toggle the AM/PM indication by pressing any key 0-9 while the cursor is under the A/P position and then press [*]. Repeat this to programme the stop of window entry. When the entry is completed, the "Time Window #?" prompt is displayed again. Enter the next time window number to be programmed and repeat the procedure.
<div>Quit ?</div> <div>1 = YES 0 = NO 0</div>	Enter 0 at the Quit ? prompt to return to the main menu choices and continue programming. Enter 1 to quit Scheduling Menu Mode.



Because the time windows are shared among all partitions, it is important to make sure that changing a time window does not adversely affect desired actions in other partitions.

Daily Open/Close Schedules

Each partition can be assigned one daily open/close schedule, plus a holiday schedule. Temporary schedules are programmed separately, using the **#81 Temporary Schedule Menu Mode**. To programme additional open/close schedules, see *Time-Driven Events Programming* later in this section for the procedure.

Open/Close Schedule Worksheet

Use the following worksheet to write the previously defined time window numbers for open and close for each partition.

Part	Mon		Tues		Wed		Thur		Fri		Sat		Sun		Hol	
	Op	Cl	Op	Cl	Op	Cl	Op	Cl	Op	Cl	Op	Cl	Op	Cl	Op	Cl
1																
2																
3																
4																
5																
6																
7																
8																

Open/Close Schedule Programming

After entering Scheduling Menu Mode, press **[0]** until the “O/C Schedules?” prompt appears.

PROMPT	EXPLANATION
O/C Schedules ? 1 = YES 0 = NO 0	Enter 1 to programme opening and closing schedules.
Partition # ? 01-08, 00 = Quit 01	Enter the appropriate partition number for which the following open/close schedules will apply. Enter 00 + [*] at the “Partition #?” prompt to quit open/close schedules programming and display the “Quit ?” prompt.
Mon P1 OP WIND.? 00:00 00:00 00	Enter the time window number 01-20 for the displayed day’s opening schedule beginning with Monday. Enter 00 if no schedule is desired for a particular day. As the number is keyed in, the actual time that has been stored for that window number is displayed as a programming aid. Press [*] to accept the entry.
Mon P1 CL WIND.? 00:00 00:00 00	Enter the time window number for the displayed day’s closing schedule. As the number is keyed in, the actual time that has been stored for the window number is displayed. Press the [*] key to accept the entry.
Tue P1 OP WIND.? 00:00 00:00 00	The keypad now prompts for Tuesday’s open/close schedule. Follow the procedure for Monday’s prompts. When the last day of the week has been programmed, the holiday opening and closing window prompts are displayed.
Hol P1 OP WIND.? 00:00 00:00 00	Repeat the procedure for the holiday opening and closing time windows. Press the [*] key to accept the entry. When the entries are completed, the “Partition #?” prompt is displayed again. Repeat this procedure for each partition in the system.
Quit ? 1 = YES 0 = NO 0	Enter 0 at the “Quit ?” prompt to return to the main menu choices and continue programming. Enter 1 to quit Scheduling Menu Mode.

Holiday Schedules

A holiday schedule overrides the regular daily open/close schedule on the programmed holidays throughout the year.

List the desired holidays in a Month/Day format on the worksheet. Check the partitions for which these holidays apply.

Holiday Schedule Worksheet

Use the following worksheet to record the 16 holidays that can be assigned for the system. Each holiday can be assigned to any combination of partitions.

HOL	Partition								
	Month/Day	1	2	3	4	5	6	7	8
1	/								
2	/								
3	/								
4	/								
5	/								
6	/								
7	/								
8	/								
9	/								
10	/								
11	/								
12	/								
13	/								
14	/								
15	/								
16	/								

Holiday Schedule Programming

After entering Scheduling Menu Mode, press [0] until the "Holidays ?" prompt appears.

PROMPT	EXPLANATION
Holidays ? 1 = YES 0 = NO 0	Enter 1 to programme holiday schedules.
HOLIDAY NUMBER ? 01-16,00=Quit 01	Enter the 2-digit holiday number (01-16) to be programmed and press [*] to accept entry. Enter 00 + [*] at the "Holiday Number?" prompt to quit the holiday menus and display the "Quit ?" prompt.
01 ENTER DATE 00/00	The cursor is now positioned on the tens of months digit. Enter the appropriate month, then press [*] to proceed to the day field. Enter the appropriate day for the holiday. Press [*] to accept the entry.
Part ? 12345678 Hit 0-8 x x	Holidays can be set for any partition, as follows. Press [0] to turn all partitions on or off, or use keys 1-8 to toggle the letter "x" under the partition to which this holiday will apply. Press the [*] key when all desired partitions have been assigned. The "Holiday Number?" prompt is displayed again. Repeat the procedure for each holiday to be programmed.
Quit ? 1 = YES 0 = NO 0	Enter 0 at the "Quit ?" prompt to return to the main menu choices and continue programming. Enter 1 to quit Scheduling Menu Mode.

Time-Driven Events

These are the schedules used to activate outputs, bypass zones, etc. based on a time schedule. There are 20 of these events that may be programmed for the system, with each event governed by the previously defined time windows.

The actions that can be programmed to automatically activate at set times are: relay commands, arm/disarm commands, zone bypassing commands, and open/close access conditions.

Time-Driven Events Worksheet

Fill out the following worksheet using the steps outlined below.

Sched Num.	Time Window	Days									Action Desired	Action Specifier	Activation Time
		M	T	W	T	F	S	S	H				
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

1. Enter the schedule number (01-20) and time window number (01-20), and note the day of the week the action is desired.
2. Enter the code for the desired action and action specifier. The action codes represent the events that are to take place when the scheduled time is reached.

Each action also requires an action specifier, which defines what the action will affect (relay, relay group, partition, zone list, user group). The action specifier varies, depending on the type of action selected.

The following is a list of the Action Codes (desired actions) used when programming Time-Driven events. Note that these codes are independent of the relay codes programmed during *Output Programming* in the #93 Menu Mode.

Relay Commands

Action Code	Action	Action Specifier
01	Relay On	Relay #
02	Relay Off	Relay #
03	Relay Close for 2 seconds	Relay #
04	Relay Close XX minutes (set in field 1*74)	Relay #
05	Relay Close YY seconds (set in field 1*75)	Relay #
06	Relay Group On	Relay Group #
07	Relay Group Off	Relay Group #
08	Relay Group Close for 2 seconds	Relay Group #
09	Relay Group Close XX minutes (set in field 1*74)	Relay Group #
10	Relay Group Close YY seconds (set in field 1*75)	Relay Group #

Arm/Disarm Commands

Action Code	Action	Action Specifier
20	Arm-STAY	Partition(s)
21	Arm AWAY	Partition(s)
22	Disarm	Partition(s)
23	Force Arm STAY (Auto-bypass faulted zns)	Partition(s)
24	Force Arm AWAY (Auto-bypass faulted zns)	Partition(s)



- The auto-arm warning (field 2*06) applies when using Time-Driven events to auto-arm.
- Temporary schedules do not override an auto-arming or auto-disarming programmed in Time-Driven events.
- The auto-arming window cannot be extended using the Installer Code + #82 Mode.

Bypass Commands

Action Code	Action	Action Specifier
30	Auto bypass – Zone list	Zone list #
31	Auto unbypass – Zone list	Zone list #

Open/Close Windows

Action Code	Action	Action Specifier
40	Enable Opening Window by partition	Partition(s)
41	Enable Closing Window by partition	Partition(s)
42	Enable Access Window for access group	Access Group

3. Enter the desired activation time (when the action is to take place). Select from:

Activation Time	Description
01	Beginning of time window.
02	End of time window.
03	During time window active period only (on at beginning of window, off at end). For example, if bypass is selected to activate during the window, zones in a zone list are bypassed at the beginning of the window and unbypassed at the end of the window.
04	Beginning and end of time window (e.g., a coffee break buzzer). In this example, if relay pulse is selected, the relay pulses for 2 seconds at the beginning of the window, signaling the beginning of the coffee break. At the end of the window it pulses again, signaling the end of coffee break.

Time-Driven Event Programming

The following menu items must first be programmed in *Output Programming in the #93 Menu Mode*:

Enter Relay No.	(reference identification number)
Output Group	(if applicable)
Restriction	
Output Type	(V-Plex, 4204 or X-10)
Zone No.	(V-Plex)
ECP Address	(4204)
Relay No.	(4204)
House Code	(X-10)
Unit Code	(X-10)

After entering Scheduling Menu Mode, press [0] until the "Timed Events ?" prompt appears.

PROMPT	EXPLANATION
<div>Timed Events ? 1 = YES 0 = NO 0</div>	Enter 1 to programme timed events.
<div>TIMED EVENT # ? 01-20, 00=Quit 01</div>	Enter the timed event number to be programmed (01-20) . Press [*]. The system then prompts the user to enter the desired action to be taken. Enter 00 at the “TIMED EVENT #?” prompt to quit the timed event menus and display the “Quit ?” prompt.
<div>01 ACTION ? none 00</div>	Enter the action code for this timed-event number from the list at the left. This could be an output command, an arming command, or any other Time-Driven event. Press [*] to accept the entry. The prompt for the action specifier appears.
ACTION CODES	EXPLANATION
01=Relay On 02=Relay Off 03=Relay Close for 2 seconds 04=Relay Close XX minutes 05=Relay Close YY seconds	<div>Actions 01-05 If you selected actions 01-05, the prompt at the right appears. Enter the relay number. Press [*] to accept entry. The “Time Window ?” prompt appears.</div>
	<div>01 RELAY # ? 00</div>

ACTION CODES	EXPLANATION	ACTION SPECIFIER
06=Relay Group On 07=Relay Group Off 08=Relay Group Close for 2 seconds 09=Relay Group Close XX minutes 10=Relay Group Close YY seconds	Actions 06-10 If you selected actions 06-10 , the prompt at the right appears. Enter the relay group number. Press [*] to accept entry. The "Time Window ?" prompt appears.	01 RELAY GRP # ? 00
20=Arm-STAY 21=Arm AWAY 22=Disarm 23=Force Arm STAY 24=Force Arm AWAY 40=Enable Open Window by Part. 41=Enable Close Window by Part.	Actions 21-24 and 40-41 If you selected actions 21-26 or 40-41 , the prompt at the right appears. Enter the partition to which the action applies. Enter 0 to select all partitions. Enter a partition number again to deselect it. Press [*] to accept entry. The "Time Window ?" prompt appears.	PART? 12345678 HIT 0-8 X X
30=Auto bypass – Zone list 31=Auto unbypass – Zone list	Actions 30-31 If you selected actions 30-31 , the prompt at the right appears. Enter the zone list number that contains the zones to be bypassed or unbypassed. Press [*] to accept entry. The "Time Window ?" prompt appears.	01 ZONE LIST ? ENTER 01-15 01
42=Enable Access Window for Access group(s)	Action 42 If you selected action 42 , the prompt at the right appears. Enter the group number to which the time window will apply. Press [*] to accept entry. The "Time Window ?" prompt appears.	GROUP ? 12345678 HIT 0-8 X
01 Time Window ? 00:00 00:00 01	Enter the time window number (01-20) for which this timed event is to occur. As the number is keyed in, the actual time that has been stored for the time window number is displayed. Press [*] to accept entry.	
01 Active time ? 00	Enter the activation time from 1-10 (listed below). As the number is keyed in, the activation time is displayed. The choices are: 01: Trigger at the start of the window. 02: Trigger at the end of the window. 03: Take effect only for the duration of the window. 04: Trigger at both the start and the end of the window. Example: coffee break buzzer. Press [*] to accept entry.	
Days ? MTWTFSSH Hit 0-8 x x	The system then asks for which days the event is to be activated. Press 0 to toggle all days on or off; or press keys 1-8 to toggle the letter "x" under the day on or off (Monday = 1, Holiday = H = 8). When all entries have been made, the "TIMED EVENT #?" prompt is displayed again. Repeat the procedure for each timed event for the installation.	
Quit ? 1 = YES 0 = NO 0	Enter 0 at the "Quit ?" prompt to return to the main menu choices and continue programming. Enter 1 to quit Scheduling Menu Mode.	

Limitation of Access Schedules

Limitation of Access is a means by which a user's access code is limited to working during a certain period of time. The system provides 8 Access Schedules, each of which consists of two time windows for each day of the week and two time windows for holidays (typically, one for an opening time window and the second for a closing time window). A user, required to follow a schedule, would be assigned to an access group of the same number (e.g., schedule 1= group 1).

The user's access code is assigned to a group when that user is added to the system. If no limitations apply, enter **0**.

NOTE: Holidays used for access groups are those defined for partition 1 only.

Limitation of Access Schedule Worksheet

Enter the appropriate time window numbers for each access schedule.

Acc Sch	Mon		Tues		Wed		Thurs		Fri		Sat		Sun		Hol	
	W1	W2	W1	W2	W1	W2	W1	W2	W1	W2	W1	W2	W1	W2	W1	W2
1																
2																
3																
4																
5																
6																
7																
8																

Limitation of Access Schedules Programming

To programme access schedules, do the following:

Enter Scheduling Menu Mode **Installer Code + # 80**. After entering Scheduling Menu Mode, press **[0]** until the “Access Sched. ?” prompt appears.

PROMPT	EXPLANATION
Access Sched. ? 1 = YES 0 = NO 0	Enter 1 to programme access schedules.
ACCESS SCHED # ? 01-08, 00 = Quit 01	Enter the access control schedule number between 01 and 08 . Enter 00 to quit the access control menus and display the Quit ? prompt. Press [*] to accept entry.
MON A1 Window 1 ? 00:00 00:00 00	Enter the first time-window number (01-20) for this access schedule for the displayed day. As the number is keyed in, the actual time that has been stored for the window is displayed. Press [*] to continue.
MON A1 Window 2 ? 00:00 00:00 00	Enter the second time-window number from 01-20 for this access schedule for the displayed day. As the number is keyed in, the actual time that has been stored for the window is displayed. Press [*] to continue.
TUE A1 Window 1 ? 00:00 00:00 00	Repeat the procedure for the other days of the week. When the last day of the week has been programmed, the windows for holidays may be entered.
Hol A1 Window 1 ? 00:00 00:00 00	Enter the first time-window number for holidays for this access schedule. As the number is keyed in, the actual time that has been stored for the window is displayed. Press [*] to continue.
Hol A1 Window 2 ? 00:00 00:00 00	Enter the second time-window number for holidays for this access schedule. As the number is keyed in, the actual time that has been stored for the window is displayed. Press [*] to continue.
Quit ? 1 = YES 0 = NO 0	Enter 0 at the “Quit ?” prompt to return to the main menu choices and continue programming. Enter 1 to quit Scheduling Menu Mode.

Temporary Schedules

Each partition can be assigned a temporary schedule, which overrides the regular open/close schedule (and the holiday schedule). This schedule takes effect as soon as it is programmed, and remains active for up to one week.

Only users with the authority level of manager or higher can programme temporary schedules. A temporary schedule affects only the partition from which it is entered. Temporary schedules can also be reused at later dates simply by scrolling (pressing **[#]**) to the “DAYS?” prompt and activating the appropriate days. This should be considered when defining daily time windows.

Temporary Schedule Worksheet

Partition/Windows		Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	Disarm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
2	Disarm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
3	Disarm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
4	Disarm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
5	Disarm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
6	Disarm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
7	Disarm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							

Partition/Windows		Mon	Tue	Wed	Thu	Fri	Sat	Sun
8	Disarm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							

Temporary Schedules Programming

Enter **User Code + [#] + 81** to enter this mode.

PROMPT	EXPLANATION
Mon DISARM WIND. 00:00AM 00:00AM	<p>This prompt is for entering the start and end times of the disarm (opening) window for Monday.</p> <p>Upon entry of this mode, the cursor is positioned on the tens of hours digit of the start time of the disarm window. Enter the desired hour.</p> <p>Press [*] to move to the minutes field. The minutes are entered in the same manner.</p> <p>Press [*] to move to the AM/PM position. Pressing any key in the 0-9 range toggles the AM/PM indication.</p> <p>Repeat the procedure for the stop time entry.</p> <p>Press [*] to store the entries and move to the arming (closing) window for Monday.</p> <p>Pressing [#] scrolls you through the prompts without making any changes.</p>
Mon ARM WINDOW 00:00AM 00:00AM	<p>This prompt is for entering the start and end times of the arm (closing) window for Monday.</p> <p>The cursor is positioned on the tens of hours digit of the start time of the arm window. Enter the desired hour.</p> <p>Press [*] to move to the minutes field. The minutes are entered in the same manner.</p> <p>Press [*] to move to the AM/PM position. Pressing any key in the 0-9 range toggles the AM/PM indication.</p> <p>Repeat the procedure for the stop time entry.</p> <p>After the windows for that day have been completed, the system prompts for disarm and arm time windows for the next day.</p> <p>Press [#] if no changes are desired.</p>
Tue DISARM WIND. 00:00AM 00:00AM	<p>Repeat the procedure described above for all days of the week.</p> <p>When all the windows for all the days have been completed, the system prompts for which days of the schedule are to be activated.</p>
Days ? MTWTFSS Hit 0-7 x x	<p>This is the prompt that actually activates the temporary schedule.</p> <p>To select the days to be activated, enter 1-7 (Monday = 1). An "X" appears under that day, indicating the temporary schedule for that day is active. Entering a day's number again deactivates that day. Pressing 0 toggles all days on/off.</p> <p>The temporary schedule is in effect only for the days highlighted with the letter "x" under them. As the week progresses, the selected days are reset to the inactive state, but all other entries for the temporary schedule remain programmed.</p> <p>Press [*] to store the entries or press [#] to exit the Temporary Schedule Entry Mode without making any changes.</p>

User Scheduling Menu Mode

The system provides up to 20 "timers" available to the end user to control output devices. The output devices themselves are programmed into the system by the installer during *Relay Programming* in the *#93 Menu Mode*. The end user needs only to know the output device number and its alpha descriptor.

The installer may set certain outputs to be "restricted" during *Relay Programming* (this prevents the end user from controlling doors, pumps, bell outputs, etc.)

To enter this mode, the user enters **User Code + [#] + 83**.

PROMPT	EXPLANATION
Output Timer # ? 01-20, 00=Quit 01	Enter the output timer number to be programmed (01-20) . Press [*] to accept entry and move to the next prompt. Enter 00 to quit and return to normal operating mode.
06 07:00P 11:45P PORCH LITE 04	If that timer number has already been programmed, a summary screen appears. In this example: 06 = Timer # 07:00PM = Start Time 11:45PM = Stop Time PORCH LITE = Descriptor for Output Device # 4 04 = Output Device # affected by this timer Press [*] to continue.
06 ENTER OUTPUT# PORCH LITE 04	Enter the desired output number (01-96) . As the number is entered, the descriptor for that output device is displayed. Press [*] to continue.



Entering **00** as the output number deletes the timer (Timer 06, in this example) and displays an output descriptor of "None." Output devices are programmed via #93 Menu Mode.

PROMPT	EXPLANATION
06 ON TIME ? 07:00 PM	The cursor is positioned on the tens of hours digit of the ON time. Enter the desired hour. Press [*] to move to the minutes field. The minutes are entered in the same manner. The AM/PM indication is toggled by hitting any key in the 0-9 while the cursor is under the AM/PM position. Press [*] to continue.
06 OFF TIME ? 11:45 PM	The cursor positioned on the tens of hours digit of the OFF time. Enter the desired hour. Press [*] to move to the minutes field. The minutes are entered in the same manner. The AM/PM indication is toggled by hitting any key in the 0-9 while the cursor is under the AM/PM position. Press [*] to continue.
06 DAYS? MTWTFSS HIT 0-7 x x	To select the days to be activated, enter 1-7 (Monday = 1). An "x" appears under that day, indicating the output for that day is active. Entering a day's number again deactivates that day. Pressing 0 toggles all days on/off. The outputs are in effect only for the days highlighted with the letter "x" under them. As the week progresses, the selected days are reset to the inactive state, unless the permanent option is selected (next screen prompt). When completed, press [*] to continue.
06 Permanent ? 0 = NO, 1 = YES 0	Selecting "Permanent" (1) means that this schedule will be in effect on a continuous basis. Selecting 0 means that this schedule will be in effect for one week only. The letter "x" under the day is then cleared, but all other entries for the output device remain programmed. Press [*] to accept entry. The system quits User Scheduling Mode and returns to normal operating mode.

System Communication

A Successful Transmission

When a control panel calls the central station receiver, it waits to hear a “handshake” frequency from the receiver to confirm that the receiver is on-line and ready to receive its message. Once the panel hears the handshake it is programmed to listen for, it sends its message. The panel then waits for a “kissoff” frequency from the receiver acknowledging that the message was received and understood.

If the handshake frequency is not given or is not understood by the panel, the panel will not send its message. Once the handshake frequency is received and understood by the panel, the panel will send its message. If there is an error in the transmission (the receiver does not receive a “valid” message), the kissoff frequency will not be given by the central station receiver.

The panel will make a total of eight attempts to the primary telephone number and eight attempts to the secondary telephone number (if programmed) to get a valid message through. If the panel is not successful after its numerous attempts, the keypad will display “Communication Failure” (Alpha keypad).

Reporting Formats

The following chart defines the three sets of (handshake/kissoff) frequencies that the panel supports and the different formats that can be sent for each.

Format	Handshake	Transmit Data	Kissoff	Transmit Time
ADEMCO Low Speed (3+1; 4+1; 4+2)	1400Hz	1900Hz (10pps)	1400Hz	Under 15 seconds (standard format)
Sescoa/Radionics (3+1; 4+1; 4+2)	2300Hz	1800Hz (20pps)	2300Hz	Under 10 seconds (standard format)
ADEMCO Express	1400-2300Hz	DTMF (10cps)	1400Hz	Under 3 seconds
ADEMCO High Speed	1400-2300Hz	DTMF (10cps)	1400Hz	Under 5 seconds
ADEMCO Contact ID	1400-2300Hz*	DTMF (10cps)	1400Hz	Under 3 seconds

* Only 2300Hz for Robofon version

ADVISORY: Ademco's Contact ID reporting is capable of uniquely reporting all 128 zones of information, as well as openings and closings for all 150 users, to central stations equipped with the Ademco 685 receiver using software level 4.4 or higher. Must be level 4.7 or higher to fully support all new VISTA-120 report codes. 685 software levels below 4.4 cannot support Contact ID reporting. For information regarding updating the 685 receiver, contact your nearest Ademco Support location.

Format Descriptions

Format	Description
3+1 and 4+1 Standard Formats	Comprised of a 3- (or 4-) digit subscriber number and a single digit report code (e.g. Alarm, Trouble, Restore, Open, Close, etc).
3+1 and 4+1 Expanded Formats	Comprised of a 3- (or 4-) digit subscriber number, and a two-digit report code. The first digit is displayed on the first line, followed by a second line where the first digit is repeated 3 (or 4) times and followed by the second digit. This is the “expanded” digit.
4+2 Format	Comprised of a 4-digit subscriber number and 2-digit report code.
Ademco High Speed	Comprised of 13 digits as follows: A 4-digit account number + eight channels of zone information (1-8 or duress plus 9-15) + one status channel, which identifies the type of events being reported in the eight zone locations.
Ademco Contact ID	Comprised of a 4-digit subscriber number, 1-digit event qualifier (“new” or “restore”), 3-digit event code, 2-digit Partition No., and 3-digit zone number, user number, or system status number.

Format Examples

Report	3+1/4+1 Standard	3+1/4+1 Expanded	4+2 Low Speed or Express
Alarm	SSS(S) A	SSS(S) A AAA(A) Z	SSSS AZ
Trouble	SSS(S) T	SSS(S) T TTT(T) t	SSSS Tt
Bypass	SSS(S) B	SSS(S) B BBB(B) b	SSSS Bb
AC Mains Loss	SSS(S) E	SSS(S) E EEE(E) A _C	SSSS EA _C
Low Battery	SSS(S) L	SSS(S) L LLL(L) L _B	SSSS LL _B
Open	SSS(S) O	SSS(S) O OOO(O) U	SSSS OU
Close	SSS(S) C	SSS(S) C CCC(C) U	SSSS CU
Test	SSS(S) G	SSS(S) G GGG(G) g	SSSS Gg
Alarm Restore	SSS(S) R	SSS(S) R RRR(R) Z	SSSS RZ
AC Mains Restore	SSS(S) R _A	SSS(S) R _A R _A R _A R _A (R _A)A _C	SSSS R _A A _C
LoBat Restore	SSS(S) R _L	SSS(S) R _L R _L R _L R _L (R _L)L _B	SSSS R _L L _B
Trouble Restore	SSS(S) R _T	SSS(S) R _T R _T R _T R _T (R _T)t	SSSS R _T t
Bypass Restore	SSS(S) R _B	SSS(S) R _B R _B R _B R _B (R _B)b	SSSS R _B b

Format Examples Legend

SSS or SSSS	Subscriber ID
A	Alarm Code-1st digit
Z	Typically Zone Number*-2nd digit
Tt	Trouble Code (1st & 2nd digits)
Bb	Bypass Code (1st & 2nd digits)
EA _C	AC Mains Loss Code (1st & 2nd digits)
LL _B	Low Battery Code(1st & 2nd digits)
O	Open Code-1st Digit
C	Close Code-1st Digit
U	User Number (1st & 2nd digits)
Gg	Test Code (1st & 2nd digits)
R	Restore Code (Alarm)1st & 2nd digits
R _T t	Restore Code (Trbl)1st & 2nd digits
R _B b	Restore Code (Byps)1st & 2nd digits
R _A A _C	Restore Code (AC Mains)1st & 2nd digits
R _L L _B	Restore Code (Bat)1st & 2nd digits

*Zone numbers for:

[*] + [#], or [B] = 99;

[3] + [#], or [C] = 96;

[1] + [*], or [A] = 95;

Duress = 92

Ademco High Speed Reporting

Ademco High Speed reports the events by channel:

Channels 1 through 8 could have one of the following conditions:

- 1 = New Event
- 2 = Opening (Status Channel Always = 2)*
- 3 = Restore
- 4 = Closing (Status Channel Always = 4)*
- 5 = Normal, No Event to Report
- 6 = Previously Reported, Not Yet Restored

* NOTE: Channel 1 will contain the user ID 1-9, A-F if Open/Close reporting is enabled.

The status channel might have one of the following conditions:

- 1 = Duress (For Duress Plus Channels 9-15 Only)
- 2 = Opening
- 3 = Bypass (For Channels 1-8 Only)
- 4 = Closing

5 = Supervisory/Trouble (For Channels 1-8 Only)

6 = System Status:

- AC Mains Loss in Channel 1
- Low Battery in Channel 2
- Time Set in Channel 3
- Log Clear in Channel 3
- Log 50% Full in Channel 3
- Log 90% Full in Channel 3
- Log Overflow in Channel 3
- Power On Reset in Channel 4
- Walk Test Start/End in Channel 8

7 = Normal Alarm Status (Channels 1-8 Only)

9 = Test Report

A typical High Speed report may look as follows:

1234 5115 5555 7 (Acct #1234 with alarms on channels 2 and 3)

Limitations When Using Ademco High Speed

- When using Ademco High Speed, remember there are only 15 channels available, plus a duress channel. If more than 15 zones are being used, they will have to share channels.
- With Ademco High Speed reporting, channels 9-15 cannot report troubles or bypasses. Use these channels for zones that will not report these conditions.
- Only user numbers 1-15 can be uniquely reported with open/close reports in Ademco High Speed.

Ademco Contact ID Reporting

Ademco Contact ID takes the following format:

CCCC QEEE GG ZZZ

where: CCCC = Customer (subscriber) ID

Q = Event qualifier, where:

E = New event, and R = Restore

EEE = Event code (3 hexadecimal digits)

GG = Partition Number (system messages show "00")

ZZZ = Zone/contact number reporting the alarm, or user number for open/close reports. System status messages (AC Loss, Walk Test, etc.) contain zeroes in the ZZZ location.

TABLE OF CONTACT ID EVENT CODES

Code	Definition
110	Fire Alarm
111	Smoke Alarm (Fire w/Verification)
113	Water Flow Alarm
121	Duress
122	Silent Panic
123	Audible Panic
124	Duress Access Grant
125	Duress Egress Grant
131	Perimeter Burglary
132	Interior Burglary
133	24 Hour Burglary
134	Entry/Exit Burglary
135	Day/Night Burglary
140	ACS Zone Alarm
142	Polling Loop Short Alarm
150	24 Hour Auxiliary
200	Fire Supervisory
301	AC Loss
302	Low System Battery
305	System Reset
306	Programme Tamper
308	System Shutdown
309	Battery Test Fail
310	Ground Fault
311	System Engineer Reset
320	ACS Relay Supervision
321	Bell 1 Trouble
322	Bell 2 Trouble
332	Poll Loop Short-Trouble
333	Expansion Module Failure
338	ACS Module Low Battery
339	ACS Module Reset
342	ACS Module AC Loss
343	ACS Module Self-Test Fail

Code	Definition
351	Main Dialler Trouble
352	Backup Dialler Trouble
354	ACS RS232 Fail
373	Fire Loop Trouble
374	Exit Error by Zone
380	Trouble (global)
381	Loss of Supervision (RF)
382	Loss of RPM Supervision
383	RPM Sensor Tamper
384	RF Transmitter Low Battery
385	High Sensitivity Maintenance Signal
386	Low Sensitivity Maintenance Signal
389	Detector Self-Test Failed
401	O/C By User
403	Power-Up Armed/Auto-Arm
Code	Definition
406	Cancel by User
407	Remote Arm/Disarm (Download)
408	Quick Arm
409	Keyswitch O/C
411	Call back Requested
421	Access Denied
422	Access Granted
423	Door Force Open
424	Egress Denied
425	Egress Granted
426	Door Prop Open
427	Access Point DSM Trouble
428	Access Point RTE Trouble
429	ACS Programme Entry
430	ACS Programme Exit
431	ACS Threat Change
432	Access Point Relay/Trigger Fail
433	Access Point DSM Shunt/Unshunt

Code	Definition
434	Access Point RTE Shunt
441	Armed STAY
451	Early Open/Close
452	Late Open/Close
453	Fail to Open
454	Fail to Close
455	Auto-arm Fail
457	Exit Error by User
459	Recent Close
501	ACS Reader Disable
520	ACS Relay Disable
521	Bell 1 Bypass
522	Bell 2 Bypass
524	Auxiliary Relay Bypass
551	Main/Backup Dialler Bypass
570	Bypass

Code	Definition
576	ACS Zone Shunt
577	ACS Point Bypass
602	Communicator Test
604	Fire Test
607	Burglary Walk Test
608	Off-Normal
611	Fire Walk Test – Point Tested
612	Fire Walk Test – Point Not Tested
621	Event Log Reset
622	Event Log 50% Full
623	Event Log 90% Full
624	Event Log Overflow
625	Time/Date Reset
631	Exception Schedule Change
632	Access Schedule Change

Downloading

General Information

Downloading allows the operator to remotely access, programme, and control the security system over normal telephone lines. Anything that can be done directly from the keypad can be done remotely, using ADEMCO's COMPASS downloading software. To communicate with the control panel, the following is required:

1. An IBM PC compatible Pentium computer with at least 16MB RAM, a hard disk with 40MB available disk space, CD ROM drive, a display with 800 x 600 pix resolution, running Windows 95, 98 (2nd edition), or Windows NT.
2. An ADEMCO designated compatible modem, such as CIA, CIA-EU, CIA-AU from ADEMCO.
3. Alternately, you may use a 4100SM interface module to "direct wire" the control panel to your computer at the site.
4. COMPASS DOWNLOADING software, from ADEMCO. This software is available on CD ROM and includes a complete User's Manual.

Getting On-Line with a Control Panel

At the protected premises, the Control panel must be connected to the existing telephone line (refer to **SECTION 3: Installing the Control**). No programming of the panel is required before downloading to an initial installation. In order to remotely access, control, or programme the alarm panel, a "link" must be established between the computer and the control panel.

To download to a panel that is not programmed, do the following:

1. Enter the installer code + [#] + [5]. The panel temporarily enables a ring count of 5 and sets the Download Callback option to "1" (callback not required).
2. Call the panel using the downloader software set to "FIRST COMMUNICATION" mode.
3. The downloader will establish a session with no callback. The panel information can then be downloaded.

To download to a panel that is already programmed, do the following:

1. The computer calls up the Control panel. (The phone number for each customer is entered into the customer's account file on the computer).
2. The Control panel "answers" at the pre-programmed ring count and executes a handshake with the computer.
3. The computer sends a request for call-back to the Control, unless call-back is not required.
4. The panel acknowledges the request and hangs up. During the next few seconds, the Control will process the request making sure certain encrypted information, received from the computer, matches data in its own memory.
5. Upon a successful match, the Control panel will seize the phone line and call the computer back, unless call-back is not required.
6. The computer answers, usually by the second ring, and executes a handshake with the panel.
7. The panel then sends other default information to the computer. If this information matches the computer's information, a successful link is established. This is known as being "ON-LINE".



Alarm and trouble responses and the reports are disabled during EEROM update during on-line time. Should an event occur during this time, the response and the report will go through as soon as the remote access sequence is completed. At other times during the on-line session, the control will signal the PC that an alarm has occurred and will break off the session to transmit alarms.

The keypads are inactive during downloading communication, and resume normal functions after hang up.

Downloading Notes

- Each time the Control panel is accessed successfully, a Programme Tamper report (*81) is sent to central station, if programmed.
- When downloading, the keypad displays "MODEM COMM."
- Whenever a download or a save is done, an automatic time stamp is done, indicating the date and time of the last download (or save) and the operator ID number.
- The average time for a complete download, including initial call-up, hang-up and call-back is under 4 minutes.
- A complete hard copy of each individual account can be obtained by connecting a printer to the computer. Refer to your computer owner's manual or contact your distributor for printer recommendations.

On-Line Control Functions

The following functions can be performed while on-line with a control panel:

- Arm the System in the Away Mode; Disarm the System (if field *38 Armed Restriction is not programmed)
- Bypass a Zone
- Force the System to Accept a New Programme Download
- Shut Down Communication (dialler) Functions (non-payment of monitoring fees in an owned system)
- Shut Down all Security System Functions (non-payment for a leased system)
- Inhibit Local Keypad Programming (prevents takeover of your accounts)
- Leave a message for customer
- Command the System to Upload a Copy of its Resident Programme to the office
- Read: Arming Status, AC Mains Status, List of Faulted Zones, List of Bypassed Zones, 224 Event Log, List of Zones Currently in Alarm, List of Zones Currently in Trouble
- Set the Real-Time clock.
- Initiate a test report from the control.
- Command relays/triggers to activate and de-activate.

Access Security

Accessing the Control from a remote location is protected against compromise by the use of 4 levels of protection:

- **Security Code Handshake:** The subscriber's account number as well as an 8-digit ID number (known only to the office) must be matched between the Control and computer.
- **Hang-Up and Call-Back:** The Control panel will "hang-up" and call the computer back at the pre-programmed number only if the security codes match.
- **Data Encryption:** All data that is exchanged between the computer and Control is encrypted to reduce the possibility of anyone "tapping" the line and corrupting data. Additionally, all account files are encrypted to prevent them from being opened on another installer's COMPASS downloading software package.
- **Operator Access Levels:** Up to 15 operators can have access to the DOWNLOADER, each having their own log-on code. However, each operator can be assigned one of three levels of access in both FILE and COMMAND functions, as follows:

File Access

Read Only: able only to look at the database; cannot change any information, and cannot see the customer's access codes.

Part Read/Write: able to look at and change all information, except the customer's access codes.

Full Read/Write: able to look at and change any and all information in the database.

Control/Comm Access

Read Only: able only to Upload and arm the system. Not able to DISARM, BYPASS, or change any information.

Part Read/Write: able to ARM, BYPASS, UPLOAD, DOWNLOAD but cannot shutdown the system.

Full Read/Write: able to perform all control and status commands, as well as shutdown all or part of the system.

Connecting a 4100SM Module for Direct Wire Downloading

The Control can be downloaded without using a modem or telephone line by using COMPASS Software and a 4100SM Serial Module. The direct wire downloading connection is to be temporary, and is not part of the permanent installation. Direct wire downloading is meant as a tool for the installer during the installation process.



The connections between the Control and the 4100SM are different than those shown in the 4100SM Installation Instructions. See Figure 9-1 for the correct connections. In addition, when the "green" wire is referred to in step 2 of the IN CASE OF DIFFICULTY section of the 4100SM Instructions, use the "violet" wire.

Connector J8, located above connector J7 on the right hand side of the main PC board (see the *Summary of Connections Diagram* on the inside back cover of this manual), is intended to be interfaced to either a local serial printer or a computer. Make connections to a computer as shown below. **Note that the violet wire connection for a computer differs from that used when connecting a serial printer.**

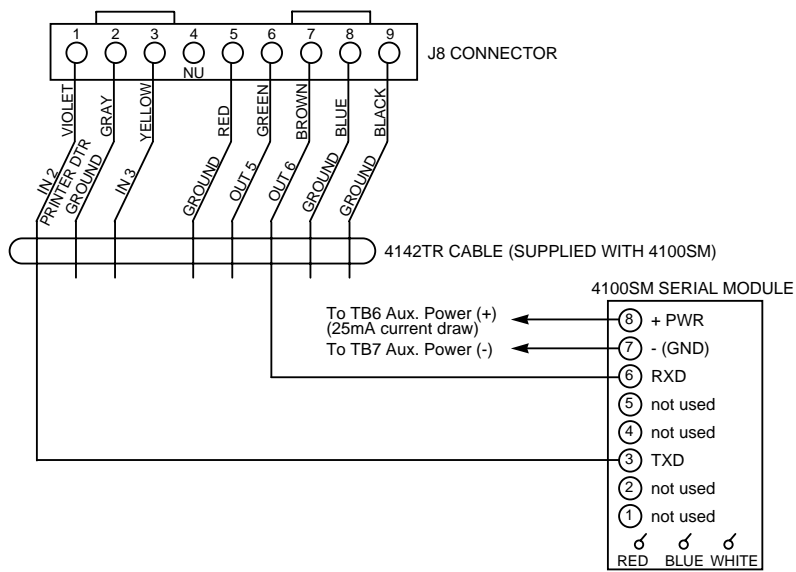


Figure 9-1. Direct Wire Downloading Connections

Setting The Real-Time Clock

General Information

This system provides a real-time clock, which must be set in order for the system's event log to keep track of events by time and date. It must also be set in order to execute scheduling programs (time-driven events).



Use an alpha keypad to set the real-time clock, or set the clock via the Downloader software. Only users with installer or master authority level can set the real-time clock.

Setting the Time and Date

1. Enter installer or master code + **# 63**. Typical display shows

TIME/DATE	—	THU
12:01 AM		01/01/90

2. The day of the week is automatically calculated based on the date entered. Time and date entries are made by simply entering the appropriate hour, minute, day, month, and year.
Press the * key to accept the entered value. The cursor then moves to the right.
Press the # key to move the cursor to the left of the display, to the previous position.
Enter the correct hour then press * to move to the minutes and make the correct entry.
Press * again, then press any key 0-9 to set AM/PM (or enter in 24 hour format, if selected in field 1*55). Press any key again to change AM to PM, or PM to AM.
Press * to move cursor to the day position and enter the correct day using a 2-digit entry.
Press * and enter the correct month.
Press * and enter the correct year.
3. Exit clock mode by pressing the * key after the cursor is in the year position.



Be sure to select the correct sync source for the Real-Time Clock (AC or the internal crystal) in field 1*54. If you select the internal crystal, use fields 1*50 and 1*51 to compensate for any internal crystal inaccuracies.

Security Access Codes

General Information

This system allows a total of 150 security access codes to be allocated, each identified by a user ID number.

Regardless of the number of partitions each code has access to, it occupies only one user slot in the system. If a particular code is not used in all partitions, that user ID number cannot be used again.

The Quick Arm feature can also be programmed (partition-specific program field *29). The Quick Arm feature allows the user to arm the system by pressing the [#] key instead of the security code. The security code must always be entered to disarm the system.



User #2 must be programmed for the Quick Arm feature to function.

In order to protect the system from attempts to defeat the security access code by trying many possible codes in sequence, the system has code tampering protection. If someone enters 20 keystrokes at a keypad within a 15 minute period, all further keypad entries from keypads in this partition will be ignored for the 15 minute period. This protection will then be repeated indefinitely.

User Codes & Levels of Authority

Each user of the system can be assigned a level of authority, which tells the system what system functions that user is authorized to do. A user can have different levels of authority within different partitions. In general, users can perform most system functions, including Test and Chime Modes, but certain authority levels restrict disarming, bypassing, or the assigning of other user codes. These restrictions are noted in the descriptions below.

Use the “View Capabilities” keypad function to view the partitions and authority levels for which a particular user is authorized. These levels are described in the following table in order from highest to lowest ranking.

Auth	Title
0	Installer
1	Master
2	Manager
3	Operator level A
4	Operator level B
5	Operator level C
6	Duress

Level 0: Installer (User 1) Code

- Programmed in field *00 (default = 4-1-4-0). Installer Open/Close reporting selected in field *39.
- Can perform all system functions (arm, disarm, bypass, etc.), but **cannot disarm** if armed by another code (or by Quick Arm).
- Can add, delete, or change all other codes, and can select Open/Close reports for any user.
- Is the only code that can be used to enter programme mode. The Installer Code can be prevented from re-entering the Programme Mode by exiting using *98.
- Must programme at least one Master Code during initial installation. Master Codes are codes intended for use by the primary user(s) of the system.

Level 1: Master Codes

- Can perform all normal system functions.
- Can be used to assign up to 148 lower-level codes, which can be used by other users of the system.
- Cannot assign anybody a level of 0 or 1.
- May change his own code.
- Can add, delete, or change Manager or Operator Codes. Each user's code can be individually eliminated or changed at any time.
- Open/Close reporting is automatically the **same** as that of the Master who is adding the new user.

Level 2: Manager Codes

- Can perform all system functions (arm, disarm, bypass, etc.) programmed by Master.
- May add, delete, or change other users of the system below this level (Manager cannot assign anybody a level of 0, 1, or 2).
- May change his own code.
- Open/Close reporting is automatically the **same** as that of the Manager who is adding the new user.

Levels 3-5: Operator Codes

- Can operate a partition, but cannot add or modify any user code (see table below).

Level	Title	Functions Permitted
3	Operator A	Arm, Disarm, Bypass
4	Operator B	Arm, Disarm
5	Operator C	Arm, Disarm only if armed with same code

- Operator C (sometimes known as the Babysitter Code) cannot disarm the system **unless** the system was armed with that code. This code is usually assigned to persons who may need to arm and disarm the system at specific times only (e.g., a babysitter needs to control the system only when babysitting).

Level 6: Duress Codes

- Sends a silent alarm to a central monitoring station if the user is being forced to disarm (or arm) the system under threat (system must be connected to a central station).
- When the system's Auxiliary Voltage Triggers are connected to another communication's media (Derived Channel/Long Range Radio), note that duress is signaled on the same trigger that signals silent panic (whereas duress has its own unique report when digitally communicated).
- Assigned on a partition-by-partition basis, and can be any code or codes desired.



Duress Reporting NOTE: A non-zero report code for zone 992 (duress) must be programmed, and partition-specific field *85 duress location enabled, to enable Duress reporting.

- The Duress report-triggering logic activates on the 5th key depression (such as OFF), not the 4th key depression (last digit of code). Duress reports are not triggered if the 5th key is a [*], such as when you perform a GOTO or view the capabilities of a user.

General Rules on Authority Levels and Changes

The following rules apply to users when making modifications within the system based on the user code authority levels:

- Master Codes and all lower-level codes can be used interchangeably when performing system functions within a partition (a system armed with a user's temporary code can be disarmed with the Master Code or another user's temporary code), except the Operator Level C Code described above.
- A user may not delete or change the user code of the **SAME** or **HIGHER** authority than that which he is assigned.
- A user (levels 0, 1 and 2 only) may only **ADD** users to a **LOWER** authority level.
- A user may assign other users access to only those partitions to which he himself has access.
- A user code can be **DELETED** or **CHANGED** only from within the partition it was created in.
- User numbers must be entered in 3 digits. Single-digit user numbers must, therefore, always be preceded by a "00" (e.g., 003, 004, 005, etc.). Make sure the end user understands this requirement. Temporary codes are entered as 4-digit numbers.

Open/Close Reporting Note: When a user is added, the system prompts for Open/Close reporting capability only if the installer is adding the new user. When a Master or Manager adds a new user, the new user's Open/Close reporting is the same as that of the Master or Manager who is adding the user. If Open/Close reports are required to be selectable by the Master or Manager, the Installer should assign two Master or Manager user codes: one with Open/Close reporting enabled, and one without.

Note that Open/Close reporting of Quick Arm is enabled if User 002 is enabled for Open/Close reporting, and that Quick Arm reports as User 000. In order for Quick Arm reports to be sent for all partitions, User 002 must have authority and Open/Close must be enabled for all partitions. If a code with access to all partitions is not desired, it is suggested that user 002 be assigned authority level 5 in all partitions, and that the code be kept secret. Authority level 5 cannot disarm the system unless armed by that user.



ADEMCO Contact ID format is capable of reporting Users 001-150 uniquely. If any other report format is used, only user numbers 001 – 015 can uniquely report to the central station. Users 016 – 150 will report as User 015.

Multiple Partition Access

Each user is programmed for a primary (home) partition. A user can also be given access to operate one or more additional partitions. Within each partition, each user may be programmed to have different levels of authority. For example, User 003, the VP of Engineering, could be assigned to work within the Engineering Department (Partition 1) of ABC Manufacturing. Because he needs the full capabilities in his area, he is assigned as a MASTER with Level 1 authority. This means he may arm, disarm, bypass, add, or modify users in Partition 1.

He must also be able to gain access to the manufacturing area (Partition 2) on an emergency basis. You can set this up easily with the partitioned system by requesting that he also be assigned to Partition 2, with a level of authority set lower, such as Level 4 (OPERATOR Level B), which allows him to arm and disarm, but nothing else.

The control automatically assigns him the same user number within Partition 2, and does not require reprogramming of his already-existing 4-digit security code.

EXAMPLE OF MULTIPLE PARTITION ACCESS

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
User 3	User 3						
Level 1	Level 4						
Master	Oper B						

In the above example, User 3 has MASTER authority in Partition 1 and OPERATOR B authority in Partition 2. His user number is the same for both partitions. Note that if a user number is already being used in a partition, the system will automatically assign a new user an unused number. Also notice that no access is allowed for this user into Partitions 3 – 8. Attempts to access these partitions would be denied automatically.

Adding a Master, Manager, or Operator Code



During user code entry, normal key depressions at other keypads in a partition are ignored. However, panic key depression causes an alarm and terminates user entry.

Enter **Installer Code[†] + [8] + new user no. (002-150) + new user's code**

[†]Or Master or Manager Code, but the code must be a higher level of authority than the code being changed (e.g., a Manager Code can add an Operator-level Code, but cannot add a Master or another Manager Code). Keypad prompts for the authority level for this user.

PROMPT	EXPLANATION
User Number = 003 Enter Auth. Level	Enter the level number as follows: 1 = Master 2 = Manager 3 = Operator Level A 4 = Operator Level B 5 = Operator Level C 6 = Duress Keypad then prompts for Open/Close reporting option for this user.
Open/Close Rep.? 0 = NO , 1 = YES	Press 0 (NO) or 1 (YES), depending on whether or not arming/disarming by this user will trigger Opening and Closing reports. This prompt appears only if the Installer Code is used to add a user.
Access Group? Enter 0-8	If access schedules have been programmed, this prompt appears. Enter the user's access group number (1-8) if this user should have limited access to the system. Enter 0 if no access group should be assigned.
RF Button ? 0=NO , 1=YES	If a 5800 Series button transmitter has been enabled for arming/disarming functions, and is not assigned to a user, this prompt appears. Press 0 (NO) or 1 (YES).
Enter Button ZN # (001-087)	If you answered "yes" to the RF button question, the zone number for the button is requested. Enter any one of the zone numbers assigned to the button transmitter as AWAY, STAY, or DISARM. The system then assigns all buttons of the transmitter to this user number.
Multi-Access ? 0 = NO , 1 = YES	Press 0 (NO) if the user is to have access to this partition only. Press 1 (YES) if the user is to have access to more than one partition. If NO, the program exits this mode. If YES, the keypad prompts for the Global Arm option for this user.

PROMPT	EXPLANATION
Global Arm ? 0 = NO , 1 = YES	Press 0 (NO) or 1 (YES), depending on whether this user will be allowed to arm more than one partition via Global Arm prompts (described in <i>SECTION 12: Keypad Functions</i>). The keypad now prompts for the user's access to the next partition.
Part. 2 – SHOP ? 0 = NO , 1 = YES	Press 0 (NO) or 1 (YES), depending on whether this user will have access to the displayed partition number. If NO, the keypad displays this prompt for the next partition number in sequence. If YES, the keypad prompts for the following: <ul style="list-style-type: none"> User's authority level in the displayed partition (see Authority Level prompt above). Open/Close option for this user in the displayed partition (see Open/Close prompt above). Global Arm option for this user in the displayed partition. When all partitions have been displayed, the keypad will scroll through all partitions to which access has been assigned, and will display the user number, authority level, open/close and global arm options that were programmed for each partition to which the user was granted access. For example:
Part. 1 A0* WHSE User 003 Auth=3G.	Note that the "G" following the authority level indicates that the global arm feature is enabled for this user in the displayed partition, and that the period at the end of the second line indicates Open/Close reporting is enabled for this user in the displayed partition. The "*" indicates the partition from which the user may be changed or deleted.

Changing a Master, Manager, or Operator Code

Enter **Installer Code*** + [8] + **new user no. (002-150)** + **new user's code**

*Or Master or Manager Code, but the code must be a higher level of authority than the code being changed (e.g. a Manager Code can add an Operator-level Code, but cannot add a Master or another Manager Code).

PROMPT	EXPLANATION
User Number = 003 NEW USER?	The system detects that the user number is already assigned, and prompts if this is a new user. Press 0 (NO). The system then confirms that the change is allowed based on authorization level.

Adding an RF Key to an Existing User

To add an RF key to an existing user, or to change a user's global arm option, first delete that user's code, then re-add the user code as described in the "Adding a Master, Manager, or Operator Code" paragraph.

Deleting a Master, Manager, or Operator Code

Enter **your code*** + [8] + **new user no. (002-150)** + **your code again**

*Or Master or Manager Code, but the code must be a higher level of authority than the code being changed (e.g. a Manager Code can add an Operator-level Code, but cannot add a Master or another Manager Code).

PROMPT	EXPLANATION
OK TO DELETE 003? 0=NO 1=YES	The system prompts to confirm that you want to delete this user. Press 0 (NO) or 1 (YES). If you answered "yes," that user's code is removed from all partitions to which it was assigned, and all authorization levels and other information about that user are deleted. Note that a user can be deleted only by a user with a higher authority level. A user cannot delete himself.



A user code can be deleted only from the partition through which it was entered. If an attempt is made to delete from another partition, the message "User [XXX] Not Deleted" is displayed.

Exiting the User Edit Mode

Press either [*] or [#], or don't press any key for 10 seconds.

Keypad Functions

General Information

The keypad allows the user to arm and disarm the system, and perform other system functions, such as bypassing zones, viewing messages from the central station, and displaying zone descriptors. Zone and system conditions (alarm, trouble, bypass) are shown in the display window.

When an alarm occurs, keypad sounding and external sounding will occur, and the zone(s) in alarm will be displayed on the keypad. If the alarm display lock feature is enabled (field 1*10), the first zone to go into alarm is displayed. Pressing the [*] key will display other zones in an alarm state. Pressing any key will silence the keypad sounder for 10 seconds.

Disarming the system will silence both keypad and external sounders. When the system is disarmed, any zones that were in an alarm condition during the armed period will be displayed (memory of alarm). To clear this display, simply repeat the disarm sequence (enter the security code and press the OFF key).

The keypads also feature chime annunciation, and 3 panic keys (for silent, audible, fire or personal emergency alarms) that can notify the central station of an alarm condition, if that service is connected.

To protect the system against repeated code entry attempts to find a valid user code, code entry of more than 20 key presses within a 15 minute period **without** successful entry of a valid command sequence will result in a 15 minute lockout of all keypad entries within this keypad's partition.

Arming Functions

The following is a brief list of system commands. For detailed information concerning system functions, refer to the User's Manual.

Display Faulted Zones Before arming, the system must be in the READY condition (all zones must be intact). If the "NOT READY" message appears, press the READY * key to display faulted zones.

Arming Away Enter code + [2] AWAY.

Arming Stay Enter code + [3] STAY. (all zones designated as zone types 4 and 10 will be automatically bypassed)

Arming Instant Enter code + [7] INSTANT (same as STAY without entry delay).

Arming Maximum Enter code + [4] MAXIMUM (same as AWAY without entry delay).

Disarming Enter code + [1] OFF.

Bypassing Zones Enter code + [6] BYPASS + zone number. To automatically bypass all faulted zones, use "Quick Bypass" method: Enter code + BYPASS + [#].

Chime Mode Enter code + [9] CHIME. To turn chime mode off, enter code + CHIME again.

Quick Arming: Note that if QUICK ARM is enabled (field *29), the [#] key can be pressed instead of entering the security code, for any arming procedure (Away, Stay, Instant, Maximum, etc.).



User #02 must be programmed into the system in order for the Quick Arm feature to work.

Summary of Arming Modes

Mode	Features for Each Arming Mode			
	Exit Delay	Entry Delay	Perimeter Armed	Interior Armed
AWAY	YES	YES	YES	YES
STAY	YES	YES	YES	NO
INSTANT	YES	NO	YES	NO
MAXIMUM	YES	NO	YES	YES

Global Arming

If enabled for the user, the keypad will display the following:

PROMPT	EXPLANATION
ARM ALL ? 0 = NO , 1 = YES	If NO, the keypad prompts for arming each partition individually. If YES, the system attempts to arm all partitions allowed by this user. If there are any faults (open doors, windows, etc.) the keypad will display them. See notes below. These faults must be corrected or the zone bypassed before arming will occur. When faults are corrected, repeat the arming procedure.



Global arming cannot be performed from a wireless keypad.

When using the Global Arm feature, if there are faults in any of the selected partitions, the system will enter a summary mode in which the faulted zones of all of the selected partitions will be displayed. These faults must be corrected or bypassed (code + BYPASS + [#]) will attempt to bypass the faults in all of the selected partitions). This summary mode will end in approx. 120 seconds if no keys are pressed.

If, when disarming the system using a Global Disarm, any of the selected partitions has a condition which would cause the keypad to beep (such as alarm memory or a trouble condition), the system will cause the keypad to beep and will enter a summary mode in which the alarm memory or trouble conditions of all of the selected partitions will be displayed. This mode will continue until either approx. 120 seconds elapses or a second disarm occurs which clears the beeping.

Access Control

If programmed in data field 1*76, one relay may be used for access control in each partition. To activate this relay: User code + [0]. The relay will pulse for 2 seconds.

In addition to this command, there are three other commands (#73, #74, #75) that can control access points shared with the PassPoint Access Control System.

Delaying Closing Time

If Open/Close schedules are used, end users can manually delay closing time by extending the closing window by 1 or 2 hours. This is useful if a user must stay on the premises later than usual. The user must have authority level of manager or higher. To extend the closing window, enter user code + # +82.

PROMPT	EXPLANATION
Closing Delay ? Key 0-2 Hours	Enter the number of hours, 1 or 2, by which the end of the closing window should be extended. Note: The delay is from the scheduled closing time, not from the current time. Press [*] to accept entry and exit this mode. Press [#] to exit this mode without changes.

The system will send an "Access Schedule Change" message to the central station when the closing window is extended.



An extension of the closing window cannot be reduced once it is set. However, a 1 hour delay can be increased to 2 hours. This is to prevent the user from deleting the delay after the normal window expires, thereby missing the end of the window.

Partition "GOTO" Commands

Each keypad is assigned a default partition for display purposes, and will show only that partition's information. To see information for another partition or perform system functions in another partition, use the GOTO command (code + [*] + partition number 0-8).

The keypad will remain in the new partition until directed to go to another partition, or until 120 seconds has elapsed with no keypad activity. To return to your home partition, enter [*] + partition 0.



Programme data field 2*18 to enable the GOTO function for each partition the user wants to access from another partition's keypad.

Viewing Capabilities Of A User

The keypad will display the partitions that a user is authorized for, the user number, and the authority level for all partitions authorized. Enter code + [*] + [*]. The user's capabilities in each authorized partition will typically be displayed as follows:

PROMPT	EXPLANATION
Part. 1 A0* WHSE User 01 Auth.=1G.	The user's Open/Close report capability is shown by the dot following the authority level. If Open/Close is not enabled for a user, the dot will not appear.

Viewing Zone Descriptors

The Alpha Keypads can display all programmed descriptors, which is useful to the installer when checking entries, and can be helpful to the user when there is a need to identify zones. **To display descriptors, the system must be disarmed and ready to arm.** Press and hold the READY key until the built-in instructions for that key appear, then release the key.

The zone descriptors will appear one at a time, for about 2-3 seconds each. For faster viewing, press the READY key to display the next descriptor in numerical order and so on. When all descriptors have been displayed, the control will exit display mode. To exit display mode before all descriptors have been displayed, enter the security code and press the OFF key.

Viewing Downloaded Messages

Users may occasionally receive a message from their installation company displayed on an alpha keypad. When this occurs, the keypad will display "Message. Press 0 for 5 seconds

Instruct the user to press and hold the 0 key to display the central station's message. Note that the system must be in the READY state to view these messages.

Using The Built-In User's Manual

An abbreviated User's Manual is stored in the system's memory, and can be particularly useful to the end user if the printed User's Manual is not conveniently accessible when the user needs to perform a seldom used and unfamiliar system procedure.

The Built-in User's Guide is displayed only on an alpha keypad by simply pressing any of the function keys (e.g., OFF, AWAY) for approximately 5 seconds and then releasing it. Abbreviated instructions relative to the key that has been pressed will then be displayed (2 lines of text are displayed at a time). This function works in either armed or disarmed state.

Panic Keys

There are three panic key pairs (shown below) or three lettered keys (A, B, or C) that, if programmed, can be used to manually initiate alarms and send a report to the central station. Each key pair can be individually programmed for 24 Hour Silent, Audible or Auxiliary (Emergency) responses, as well as Fire. The panic function is activated when the appropriate key pair is pressed at the same time.

The panic functions are identified by the system as follows:

Panic	Displayed as Zone
[*] + [1]	995
[#] + [3]	996
[*] + [#]	999

For alpha keypads, these panic keys can also be programmed with an alpha descriptor.



For the Silent panic function to be of practical value, the system must be connected to a central station.

Speed Keys [A, B, C and/or D] (Macros)

The A, B, C and/or D keys can be used to activate strings of up to 32 keystrokes. These keystrokes are known as a macro and are stored in the system's memory. Each partition may have its own macros. Typical Speed Key functions include:

- Arming sequences that involve first bypassing certain zones before arming.
- Seldom used but repeatable sequences.
- Relay activation sequences.

To programme a macro, enter your user code + [#] + [X], where X can be A, B, C or D. The following appears:

PROMPT	EXPLANATION
ENTER SPEEDKEY D existing sequence	Enter up to 32 keystrokes. A speed key sequence can include different commands. Press the lettered key to separate different commands. For example, you may want to perform the following:

Desired Function	Keystrokes
GOTO partition 2	Enter *2
Bypass zones 010 & 011	Press bypass [6], then the zone numbers 10 & 11
Arm in maximum mode	Press maximum [4] key
Return to partition 1	Enter *1

To programme that speed key sequence, type the following :

*2 [D] 6100011[D] 4[D] *1[D] [D]

Note that the "D" key is pressed after the "2," the last "1" and the "4," separating the different commands. Press "D" twice to complete the entry and exit.

To execute a speed key sequence, press the appropriate lettered key:

PROMPT	EXPLANATION
ENTER USER CODE *****	Enter your user code. The programmed speedkey sequence will begin automatically.



When defining speedkey sequences, do not use the [#] key to represent Quick Arming. The system uses the entered code in response to the prompt to initiate commands in a speedkey sequence, so the quick arm key is unnecessary. The system interprets the use of the [#] key in a speedkey sequence as its designated function only (e.g. #2 is not interpreted as arm in away mode, but rather as enter house ID sniffer mode).

Manual Relay Activation Mode (#70 Mode)

The system allows users to manually activate relays/X-10 modules by keypad command using either the keypad or a telephone keypad (if VIP module is used). The user will be prompted (by keypad alpha display or telephone voice module).

To activate relays from a keypad, enter 4-digit security code + [#] +70.

To activate relays using a telephone and telephone module, first dial the 2-digit phone access code. When the system acknowledges the access, enter 4-digit security code + [#] + 70. The following prompts/voice responses will begin.

PROMPT	EXPLANATION
ENTER DEVICE NO. 00=QUIT 01	Voice: "ENTER DEVICE CODE NOW" Enter the 2-digit number of the relay/X-10 module to be activated.
nn DEVICE IS OFF Key 0=OFF , 1=ON	Voice: "voice descriptor DEVICE nn ON/OFF. FOR voice descriptor ON ENTER 1, FOR voice descriptor OFF ENTER 0" Press 0 or 1 to turn the device off or on respectively. "nn" represents the 2-digit relay/X-10 module number and voice descriptor is the relay voice descriptor programmed by the installer.
nn DEVICE IS OFF Key THE "*" KEY	Voice: "voice descriptor DEVICE nn ON/OFF. TO EXIT ENTER 00 NOW" From a keypad, press [T] to continue. The ENTER DEVICE NO. prompt will appear. From a telephone keypad, enter 00 to exit, or enter the next relay number to be programmed. The current on/off state of that relay will be annunciated. Alternatively, if 6 seconds elapses with no key depression, the telephone module will annunciate the "ENTER DEVICE CODE NOW" message.

Event Logging Procedures



In order for proper time and date stamping to occur, the system's real-time clock must be set. Refer to *SECTION 10 Setting The Real-Time Clock*.

If you have selected the printer to be "on-line" (field 1*72), events will print automatically, as they occur. To display or print on demand, the following commands apply:

Display/Printing: After entering either the Display or Print mode, the following will be displayed:

Event Log Commands

Display Mode	Installer or Master code + [#] + [6] + [0]
Print Mode	Installer or Master code + [#] + [6] + [1]
Clear Event Log	Installer or Master code+ [#] + [6] + [2]
Exit Event Log	Press [*] at any time

PROMPT	EXPLANATION
ENTER 0 = RECENT 1 = COMPLETE	The Event Log holds up to 224 events, and can display or print all events in a category (complete), or only those events in a category occurring since the last Clear Event Log command (recent). Once the Event Log is full, the oldest event will be erased upon the logging of any new event. Press the desired display mode key, 0 or 1.
SCAN LOG BY PART 0=NO 1-8=PART #	The system allows viewing of any partition's event log. Enter the partition number for the partition whose events are to be displayed. Entering 0 (NO) will display all events that occurred in the system regardless of partition. Events are displayed in chronological order, from most recent to oldest. For display and printing purposes, events are stored on a partition by partition basis (except system events), and are grouped into five categories as follows. Use the [3] & [1] keys to scroll to the next and previous screens respectively:
ALARM EVENT LOG TYPE CCC UUU	Displays time/date for zones that have either caused an alarm or have been restored in selected partition.
CHECK EVENT LOG TYPE CCC UUU	Displays time/date for zones that have caused a trouble or supervisory condition in selected partition.
BYPASS EVENT LOG TYPE CCC UUU	Displays time/date for zones that have been bypassed in selected partition.
OP/CL EVENT LOG TYPE CCC UUU	Displays time, date and user number for each arming and disarming of the system for the partition selected.
SYSTEM EVENT LOG TYPE CCC UUU	Displays time/date for system problems, such as AC Loss, communication failure, etc., regardless of partition.
ALL EVENT LOG TYPE CCC UUU	Displays all categories of events in chronological order, from most recent to oldest. To display the events in a particular category, press [8] at the desired category screen. If in Display Mode , the most recent event is displayed. Press [1] to display older events, press [3] to go forward in time. If in Print Mode , the first press of [8] will cause the printer to print all events in that category, with each event automatically scrolled on the display keypad. The following is a typical display:
P8 01/01 12:02AM BURGLARY 003	Shows burglary alarm occurred in zone 3 of partition 8, at 12:02AM on January 1.
END OF EVENT LOG TYPE CCC UUU	After the last event in the selected category has been displayed (using either the [1] or [3] keys), the prompt at the right appears for a few seconds:
CLEAR EVENT LOG 0=NO 1=YES	Press [1] if Event Log is to be cleared from memory. All events in the log will still be displayed if the COMPLETE option is selected. Only those events occurring from the time of the CLEAR command will be displayed if RECENT display option is selected. Press [0] if event log is not to be cleared at this time. If [1] is pressed, the following will appear:
ARE YOU SURE? 0=NO 1=YES	Press [1] if it is desired to clear the event log. Press [0] if event log is not to be cleared.

Screen Definitions

Recent	Events since last CLEAR
Complete	Displays all events
Type	Type of event (Burglary, Fire, etc.)
CCC	Zone (contact) number
UUU	User number

Event Log Printer and Display Codes

Event	Alpha
Access Denied	NO ENTRY
Access Granted	ENTERED
Access Point Bypass	ACPT BYP
Access Point DSM Shunt	DSM SHNT
Access Point DSM Trouble	DSM TRBL
Access Point DSM Trouble Restore	DSM RST
Access Point Failure	ACS PNT
Access Point Failure Restore	ACPT RST
Access Point Relay Supervision Fail	ACPT RLY
Access Point Relay Supervision Rest	RLY RST
Access Point RTE Shunt	RTE SHUNT
Access Point RTE Trouble	RTE TRBL
Access Point RTE Trouble Restore	RTE RST
Access Point Unbypass	ACPT UNB
Access Point DSM Unshunt	DSM UNSH
Access Point RTE Unshunt	RTE UNSH
AC Loss at a Module	ACLO MOD
AC Loss at a Module Restore	ACRST MOD
AC Power Fail	AC LOSS
AC Power Restore	AC RESTORE
ACS Module Reset	RES MOD
ACS Program Entry	ACS PROG
ACS Program Exit	ACS PRGX
ACS Reader Disable	RDR DISA
ACS Reader Enable	RDR ENAB
ACS Relay/Trigger Disable	RLY DISA
ACS Relay/Trigger Enable	RLY ENAB
ACS Threat Change	THRT CHG
ACS Zone Alarm	ZN ALARM
ACS Zone Alarm Restore	ZNAL RST
ACS Zone Change	ACZN CHG
ACS Zone Shunt	ZN SHUNT
ACS Zone Unshunt	ZN UNSHT
Auto Disarm	DISARM-AUTO
Backup Battery Test Failed	BAT TST FAIL
Burglary Alarm	BURGLARY
Burglary Alarm Cancel	CANCEL
Burglary Alarm Restore	BURG RST
Comm. Failure from MLB to Module	COMM MOD
Comm. from MLB to Module Rest	COMM RST
Communication Restore	COMM RESTORE
Dialer Restored to Service	DIALER RST
Dialer Shutdown	DIALER SHUT
Disarmed	DISARMED
Door Forced Open	DR FORCE
Door Forced Open Restore	DRFO RST

Event	Alpha
Door Prop Open	DR OPEN
Door Prop Open Restore	DRPO RST
Duress Access Grant	DUR ACCS
Duress Alarm	DURESS
Duress Egress Grant	DUR EXIT
Duress Restore	DURE RST
Egress Denied	NO EXIT
Egress Granted	EXITED
Entry to Test Mode	TEST ENTRY
Event Log	LOG OVERFLOW
Event Log Cleared	LOG CLEARED
Event Log at 50% Capacity	LOG 50% FULL
Event Log at 90% Capacity	LOG 90% FULL
Exit Error Occurred	EXIT ERR
Exit From Programme Mode	PROGRAM EXIT
Exit From Test Mode	TEST EXIT
Failure to Communicate	FAIL TO COMM
Fire Alarm	FIRE
Fire Alarm Restore	FIRE RST
Fire Zone Trouble	FIRE TRB
Fire Zone Trouble Restore	FRTR RST
Intrusion Verify	INTRSN VERIF
Low Battery at a Module	LBAT MOD
Low Battery at a Module Restore	LBAT RST
Non-Burglar Alarm	AUXILARY
Non-Burglar Restart	AUX RST
Panel is Calling Download Computer	CALL BACK
Panic Alarm	PANIC
Panic Alarm Restore	PNC RST
Poll Loop Restore	EXP RST
Polling Loop RPM Restore	RPM RST
Poll Loop Short	EXP SHRT
Poll Loop Smoke Det. Tested†	TESTED
Poll Loop Smoke Det. Not Tested†	UNTESTED
Poll Loop Smoke Det. Test Failed†	FAILED
Polling Loop Short	EXP TRBL
Polling Loop Tamper	EXP TMPR
Printer Failure	PRINTER FAIL
Printer Restore	PRINTER RST
Programmed Access Sched Change	ACC SKED CHG
Programme Change	PROG CHANGE
Programme Mode Entered	PROGRAM ENTRY
Programmed Schedule was Changed	SCHEDULE CHANGE
Real-Time Clock was Set	TIME SET
RF Expander Module Fail	RF EXPND
RF Expander Module Restart	RF RST

Event	Alpha
RF Receiver Trouble	RF TRBL
RF Receiver Trouble Restore	RF RST
RF Transmitter Low Battery	RF LBAT
RF Transmitter Low Battery Restore	RFLB RST
RF Transmitter Low Battery Test	RF LB OK
RF Transmitter/Rcvr Supvs Fail	RF SUPR
RF Transmitter/Rcvr Supvs/Tble Rest.	RF RST
Scheduled System Arming Failed	ARM FAILED
Self Test Failed at a Module	SELF MOD
Self Test at a Module Restore	SELF RST
System Armed	ARMED
System Armed STAY Mode	ARMED-STAY
System Armed by Downloader	ARMED-REM
System Armed Using Quick-Arm	ARMED-QUICK
System Armed with RF Key	ARMED-KEY
System Armed Using Schedule	ARMED-AUTO
System Armed Earlier Than Schedule	ARMED-EARLY
System Armed Later Than Schedule	ARMED-LATE
Sys Batt Fail or Disconnection	BATTERY FAIL
System Battery Restore	LOW BATTERY
System Correction of Internal Time	TIME ERROR
System Did Not Arm Using Schedule	MISS ARM
System Did Not Disarm by Schedule	MISSED DISRM
System Disarmed Remotely	DISARMED-REM
System Disarmed by RF Key	DISARMED-KEY

Event	Alpha
System Disarmed Earlier than Sched	DISRMD-EARLY
System Disarmed Later than Sched	DISRMD-LATE
System Engineer Reset	SYS RST
System Low battery	LOW BATTERY
System Shutdown	SYS SHUT
System Shutdown Restore	SYSSHTRST
Supervised Relay Trouble	RLY TRBL
Supervised Relay Restore	RLY RST
System Restored After Shutdown	SYSTEM RST
System Watchdog Timer Reset	SYSTEM RESET
Tamper	TAMPER
Tamper Restore	TMPR RST
Test Report Transmitted	SELF TEST
User Code Added	Uxxx ADD BY
User Code Changed	Uxxx CHG BY
User Code Deleted	Uxxx DEL BY
PTVGM/Access Control Module Fail	ACS MOD
PTVGM/Access Control Module Fail Rest	MOD RST
Zone Bypass	BYPASS
Zone Trouble	TROUBLE
Zone Trouble Restore	TRBL RST

† Occurs after fire walk test activated.

Testing The System

Battery Test

When AC power is present, the VISTA-120 runs a brief (13 seconds) battery test every 4 minutes (alternately, the test can be for 1.5 seconds every 50 seconds) to determine if there is a battery connected, and runs an extended battery test every 24 hours to check on the battery's condition. This presence test is conducted whenever the system or a partition is disarmed.

If the VISTA-120 finds that the battery voltage is low (less than approximately 11.5V, 10.8 in the VISTA-120FR), it initiates a keypad "SYSTEM LOBAT" display and a rapid keypad beeping sound. It also sends a Low Battery report to the central station (if programmed). The keypad is cleared by entering any security code + OFF, and a Restore report is sent to the central station if the situation has been corrected.

Dialer Test

The VISTA-120 may be programmed to automatically transmit test reports to a central station at intervals ranging from once per hour to once per 999 hours (field *27).

The system can be programmed to send the first report at any time of the day, or on any day of the week (field *83).

Burglary Walk-Test (Code + [5] TEST)



Whenever the Test Mode is entered from a keypad, the system performs a LCD Display Test. This activates all LEDs and LCD dots (that make up characters) for 2-3 seconds.

This test causes the system to sound keypad beeps in response to faults on zones for the purpose of allowing proper zone operation to be checked without triggering alarms. Note that while this test is active the system will not trigger alarms for burglary and non-fire related 24-hour zones, but will trigger fire alarms. This test can be activated only by the Installer, Master or Manager-level users, by entering the corresponding security code and pressing TEST while the burglary portion of the system is disarmed.

When this test is first entered, the system activates the alarm output for 3 seconds. The system sends a Start of Walk-Test message to the central station. The keypad displays "Burg Walk Test in Progress" and sounds a single beep every 15 seconds while the test remains active.

Open and close each protected door and window in turn. Each action should produce 3 beeps from the keypad. Walk in front of any motion detectors. Listen for three beeps when the detector senses movement. The keypad displays the zone number and alpha descriptor while a door or window remains open or while a detector remains activated. The system automatically issues a Zone 8 Glassbreak Detector Power Reset about 10 seconds after it finds a fault on this zone, to allow faulted detectors to be reset.

To end this test, enter any security code and press OFF. An End of Walk-Test message is sent to the central station.

Armed Burglary System Test



- Alarm messages are sent to the central station during the following tests. Notify the central station that a test will be in progress.
- A display of "COMM. FAILURE" indicates a failure to communicate (no kiss-off by the receiver at the central station after the maximum number of transmission attempts is tried). If this occurs, verify that the phone line is connected, the correct report format is programmed, etc.

To perform an armed burglary test, proceed as follows:

- 1 Notify the central station that a test of the system is being performed.
- 2 Arm the system.
- 3 Fault one or more zones.
- 4 Silence alarm sounder(s) each time by entering the code and pressing OFF.

NOTE: The system must be rearmed after each code + off sequence.

- 5 Check that entry/exit delay zones provide the assigned delay times.
 - 6 Check the keypad-initiated alarms, if programmed, by pressing the panic key pairs (* and #, 1 and *, and/or 3 and #).
The word ALARM and a descriptor “999” are displayed for * and #. If [1] and [*] are pressed, “995” is displayed; if [3] and [#] are pressed, “996” is displayed.
 - 7 If the system has been programmed for audible emergency, the keypad emits a loud, steady alarm sound. Silence the alarm by entering the security code and pressing OFF. If the system has been programmed for silent panic, there are no audible alarms or displays. A report is sent to the central station, however.
 - 8 Notify the central station that all tests are finished, and verify results with them.
-

Testing Wireless Transmitters

Transmitter ID Sniffer Mode

Use the Transmitter Sniffer Mode to test that transmitters have all been properly programmed.



If a transmitter does not have its serial number “enrolled,” it will not turn off its zone number.

To enter the Transmitter ID Sniffer Mode, proceed as follows:

1. Enter **Installer Code + [#] + [3]**. The keypad displays all zone numbers of wireless units programmed into the system.
2. Fault each wireless zone, causing each device to transmit.
As the system receives a signal from each of the transmitters, the zone number of that transmitter disappears from the display.
3. Enter **Installer Code + OFF** to exit the Sniffer Mode.

Go/No Go Test Mode

Checking the transmitters in this mode assists in determining good mounting locations, and verifies that the RF transmission has sufficient signal amplitude margin for the installed system.



- All partitions containing wireless transmitters must be placed in the test mode for sensitivity reduction of the RF receiver (50% sensitivity). Otherwise, the RF receiver remains at full strength.
- Make sure that all partitions are disarmed when performing this test, as the wireless receiver gain is reduced in half.

To enter the Go/No Go Test Mode, proceed as follows:

1. Enter **Installer Code + [5]**.
 2. Fault each wireless transmitter, causing each device to transmit.
NOTE: If a single receiver is used, the keypad beeps three times to indicate signal reception. If two receivers are used, the keypad beeps once if the first receiver received the signal, twice if the second receiver received the signal, and three times if both receivers heard the signal.
 3. If the keypad does not beep, reorient or move the transmitter to another location. Usually a few inches in either direction is all that is required.
 4. Enter **Installer Code + OFF** to exit the Go/No Go Test Mode.
-

Trouble Conditions

Check or Trouble Messages

Display	Description
CHECK or TRBL (as per field 1*07)	This indicates that a problem exists on the zone number displayed. Zone trouble may be caused by one of the following conditions: <ul style="list-style-type: none"> • A hardwired fire zone is open (broken wire). • A Day/Night zone (zone type 5) is faulted. • A polling loop zone is not seen by the control panel. • A polling loop zone has been tampered (cover removed on a 4190). • A wireless zone has not checked in during the time programmed in field 1*31. • A 5800 Series transmitter has been tampered (cover removed).
CHECK 8XX XX = 00-30	This indicates a trouble on a peripheral device (connected to the panel's keypad terminals) of the corresponding device address (00-30).
CHECK 9XX XX = 00-99	This indicates that a system trouble exists (RF receiver, bell output, etc.). See <i>SECTION 4: Programming</i> .



If the problem has been corrected, enter an OFF sequence (**Security Code + OFF**) twice to clear the display.

Other System Messages

Display	Description
COMM FAILURE	This indicates that a failure occurred in the telephone communication portion of your system.
LO BAT	This indicates that a low-battery condition exists in the wireless transmitter displayed. Pressing any key silences the audible warning sound.
SYSTEM LO BAT	This indicates that a low-battery condition exists with the system's backup battery.
RCVR SETUP ERROR	This indicates that the system has more wireless zones programmed than the wireless receiver can support. If this is not corrected, none of the zones in the system will be protected. If additional wireless zones are desired, use an appropriate receiver.
MODEM COMM	This indicates that the control is on-line with a remote computer.

Power Failure

Display	Description
AC LOSS POWER LED is off	This indicates that the system is operating on battery power only. Check to see that the circuit breaker for the branch circuit that your system's transformer is wired to has not been accidentally turned off. Instruct the user to call a service representative immediately if AC power cannot be restored.

Telephone Operational Problems

In the event of telephone operational problems, disconnect the control panel by removing the plug from the RJ31X wall jack. We recommend that you demonstrate disconnecting the phones on installation of the system. Do not disconnect the phone connection inside the Control Panel. Doing so will result in the loss of your phone lines.

If the regular phone works correctly after the Control Panel has been disconnected from the phone lines, the Control Panel has a problem and should be returned for repair.

If upon disconnection of the Control Panel, there is still a problem on the line, notify the telephone company that they have a problem and request prompt repair service. The user may not under any circumstances (in or out of warranty) attempt any service or repairs to the system. It must be returned to the factory or an authorized service agency for all repairs.

To the Installer

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any alarm system.

The installer should assume the responsibility of developing and offering a regular maintenance program to the user as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts.

Recommendations must be included for a specific program of frequent testing (at least weekly) to ensure the system's proper operation at all times.

Turning the System over to the User

Fully explain the operation of the system to the user by going over each of its functions, as well as the User's Manual supplied.

In particular, explain the operation of each zone (entry/exit, perimeter, interior, fire, etc.). Be sure the user understands how to operate any emergency feature(s) programmed into the system.

Specifications

VISTA-120 CONTROL

Physical:	318mm Wide X 368mm High X 76mm Deep
Electrical:	
Voltage Input:	In 110 volt AC mains systems, from Ademco No. 1361 Plug-In Transformer or 4300 transformer (for X-10 installations) rated 16.5VAC, 40 VA or XF10 transformer (for 220VAC, 50Hz X-10 installations)
Alarm Sounder Output:	10VDC-13.8VDC (10.7VAC-14.5VAC for Vista-120FR), 2.8 amps max.; 750mA less aux. current drain
Auxiliary Power Output:	9.6VDC-13.8VDC, 750mA max.
Backup Battery:	12VDC, 4AH or 7AH gel cell. No. 467 (12V, 4AH) or 712BNP (12V, 7AH) recommended.
Standby Time:	4 hours min. with 750 mA aux. load using 7 AH battery.
Circuit Protectors:	PTC circuit breakers are used on battery input to protect against reverse battery connections and on alarm sounder output to protect against wiring faults (Shorts). A solid-state circuit breaker is used on auxiliary power output to protect against wiring faults (shorts).

Digital Communicator

Formats Supported:	ADEMCO High Speed, ADEMCO 4 + 2 Express, ADEMCO Low Speed, ADEMCO Contact ID, Sescoa and Radionics Low Speed
Line Seize:	Double Pole

6139 Remote Keypads

Physical:	
Width:	150mm
Height:	121mm
Depth:	32mm
Electrical:	
Voltage Input:	12VDC
Current Drain:	100mA
Interface Wiring:	
RED:	12VDC input (+) auxiliary power
BLUE:	Not Used
GREEN:	Data to control panel
YELLOW:	Data from control panel
BLACK:	Ground and (-) connection from supplemental power supply

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WARNING!

THE LIMITATIONS OF THIS ALARM SYSTEM

While this System is an advanced wireless security system, it does not offer guaranteed protection against burglary, fire or other emergency. Any alarm system, whether commercial or residential, is subject to compromise or failure to warn for a variety of reasons. For example:

- Intruders may gain access through unprotected openings or have the technical sophistication to bypass an alarm sensor or disconnect an alarm warning device.
- Intrusion detectors (e.g., passive infrared detectors), smoke detectors, and many other sensing devices will not work without power. Battery-operated devices will not work without batteries, with dead batteries, or if the batteries are not put in properly. Devices powered solely by AC will not work if their AC power supply is cut off for any reason, however briefly.
- Signals sent by wireless transmitters may be blocked or reflected by metal before they reach the alarm receiver. Even if the signal path has been recently checked during a weekly test, blockage can occur if a metal object is moved into the path.
- A user may not be able to reach a panic or emergency button quickly enough.
- While smoke detectors have played a key role in reducing residential fire deaths, they may not activate or provide early warning for a variety of reasons in as many as 35% of all fires. Some of the reasons smoke detectors used in conjunction with this System may not work are as follows. Smoke detectors may have been improperly installed and positioned. Smoke detectors may not sense fires that start where smoke cannot reach the detectors, such as in chimneys, in walls, or roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level of a residence or building. A second floor detector, for example, may not sense a first floor or basement fire. Finally, smoke detectors have sensing limitations. No smoke detector can sense every kind of fire every time. In general, detectors may not always warn about fires caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson. Depending on the nature of the fire and/or location of the smoke detectors, the detector, even if it operates as anticipated, may not provide sufficient warning to allow all occupants to escape in time to prevent injury or death.
- Passive Infrared Motion Detectors can only detect intrusion within the designed ranges as diagrammed in their installation manual. Passive Infrared Detectors do not provide volumetric area protection. They do create multiple beams of protection, and intrusion can only be detected in unobstructed areas covered by those beams. They cannot detect motion or intrusion that takes place behind walls, ceilings, floors, closed doors, glass partitions, glass doors, or windows. Mechanical tampering, masking, painting or spraying of any material on the mirrors, windows or any part of the optical system can reduce their detection ability. Passive Infrared Detectors sense changes in temperature; however, as the ambient temperature of the protected area approaches the temperature range of 32° to 40°C, the detection performance can decrease.
- Alarm warning devices such as sirens, bells or horns may not alert people or wake up sleepers if they are located on the other side of closed or partly open doors. If warning devices are located on a different level of the residence from the bedrooms, then they are less likely to waken or alert people inside the bedrooms. Even persons who are awake may not hear the warning if the alarm is muffled by noise from a stereo, radio, air conditioner or other appliance, or by passing traffic. Finally, alarm warning devices, however loud, may not warn hearing-impaired people.
- Telephone lines needed to transmit alarm signals from a premises to a central monitoring station may be out of service or temporarily out of service. Telephone lines are also subject to compromise by sophisticated intruders.
- Even if the system responds to the emergency as intended, however, occupants may have insufficient time to protect themselves from the emergency situation. In the case of a monitored alarm system, authorities may not respond appropriately.
- This equipment, like other electrical devices, is subject to component failure. Even though this equipment is designed to last as long as 20 years, the electronic components could fail at any time.

The most common cause of an alarm system not functioning when an intrusion or fire occurs is inadequate maintenance. This alarm system should be tested weekly to make sure all sensors and transmitters are working properly. The security console (and remote keypad) should be tested as well.

Wireless transmitters (used in some systems) are designed to provide long battery life under normal operating conditions. Longevity of batteries may be as much as 4 to 7 years, depending on the environment, usage, and the specific wireless device being used. External factors such as humidity, high or low temperatures, as well as large swings in temperature, may all reduce the actual battery life in a given installation. This wireless system, however, can identify a true low battery situation, thus allowing time to arrange a change of battery to maintain protection for that given point within the system.

Installing an alarm system may make the owner eligible for a lower insurance rate, but an alarm system is not a substitute for insurance. Homeowners, property owners and renters should continue to act prudently in protecting themselves and continue to insure their lives and property.

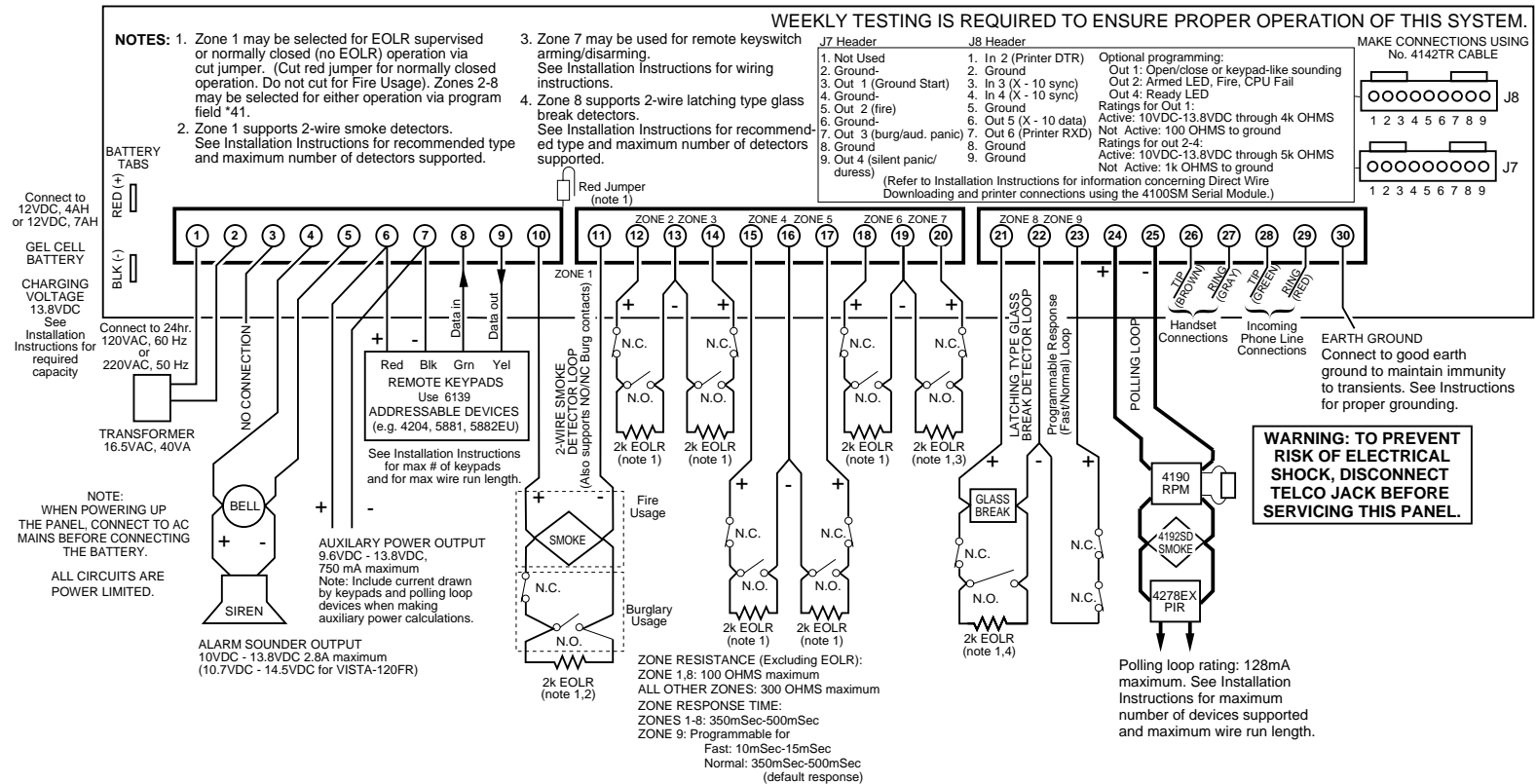
We continue to develop new and improved protection devices. Users of alarm systems owe it to themselves and their loved ones to learn about these developments.

ADEMCO LIMITED WARRANTY

Alarm Device Manufacturing Company, a Division of Pittway Corporation, and its divisions, subsidiaries and affiliates ("Seller"), 165 Eileen Way, Syosset, New York 11791, warrants its products to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for 24 months from the date stamp control on the product or, for products not having an Ademco date stamp, for 12 months from date of original purchase unless the installation instructions or catalog sets forth a shorter period, in which case the shorter period shall apply. Seller's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor, any product which is proved not in compliance with Seller's specifications or proves defective in materials or workmanship under normal use and service. Seller shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than Ademco factory service. For warranty service, return product transportation prepaid, to Ademco Factory Service, 165 Eileen Way, Syosset, New York 11791.

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ADEMCO **GROUP**

ALARM DEVICE MANUFACTURING CO.

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